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CONTENTS.

The whole of the literary matter in THE LANCET is copyright.

HARVEIAN ORATION on Old and New Views on the Treatment of Consumption. Delivered before the Royal College of Physicians of London on Oct. 18th, 1911, by C. THEODORE WILLIAMS, M.V.O., M.D. Oxon., F.R.C.P. Lond., Consulting Physician to King Edward VII. Sanatorium and to the Brompton Hospital 1117

ORIGINAL ARTICLES.

On the Results of the Manipulative Treatment of Congenital Dislocation of the Hip-joint. By GEORGE C. E. SIMPSON, B.A., M.B.Cantab., F.R.C.S. Eng., Surgical Registrar and Tutor, Royal Southern Hospital, Liverpool.—(*Illustrated*) 1124

On a Case of Axial Rotation of a Fibroid in which the Uterus was Involved in the Twist. By JOHN BLAND-SUTTON, F.R.C.S.Eng., Surgeon to the Middlesex Hospital.—(*Illustrated*) 1132

Acute Rheumatism Among Children: An Inquiry into the Prevalence of Acute Rheumatism and its Consequences among Children of School Age. By FREDERICK LANGMEAD, M.D. Lond., M.R.C.P. Lond., Assistant Physician, Royal Free and Seamen's Hospitals; and Physician to Out-patients, Paddington Green Children's Hospital 1133

Acute Endocarditis caused by a Micro-organism Hitherto Undescribed. By A. T. NANKIVELL, M.D., B.S. Lond., L.R.C.P. Lond., M.R.C.S. Eng., D.P.H. Camb., Assistant Medical Officer, Croydon Borough Hospital; and Demonstrator in Public Health, Laboratories, King's College, University of London 1134

Spinal Anæsthesia in Egypt. By H. E. S. STIVEN, M.A., M.B., B.C. Cantab., Registrar, Kasr-el-Aini Hospital, Cairo 1135

CLINICAL NOTES:

MEDICAL, SURGICAL, OBSTETRICAL AND THERAPEUTICAL.

Notes on a Case of Acute Glaucoma Successfully Treated by the Operation of Trephining the Sclera. By SYDNEY STEPHENSON, D.O. Oxon., Ophthalmic Surgeon, Queen's Hospital for Children, &c. 1136

Notes on a Case of Intra-uterine Hæmorrhage with a Nervous Origin. By D. FENTON, M.B., Ch.B. Edin., D.P.H. 1136

MEDICAL SOCIETIES.

ROYAL SOCIETY OF MEDICINE: CLINICAL SECTION:—Exhibition of Cases 1137

UNITED SERVICES MEDICAL SOCIETY: "The New Bullets" 1137

SOCIETY OF MEDICAL OFFICERS OF HEALTH: The Evolution of the Medical Officer of Health 1138

MEDICO-CHIRURGICAL SOCIETY OF GLASGOW: The Rise and Progress of the Glasgow School of Medicine: from Maister Peter Lowe to Sir William T. Gairdner 1138

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY: Exhibition of Cases and Specimens 1138

BATH CLINICAL SOCIETY: Exhibition of Cases and Specimens 1139

HARVEIAN SOCIETY: Exhibition of Cases 1139

REVIEWS AND NOTICES OF BOOKS.

England's Recent Progress. By Thos. A. Welton, F.S.S., F.C.A. 1139

A Handbook of Practical Treatment. Edited by John H. Musser, M.D., LL.D., and A. O. J. Kelly, A.M., M.D. Vol. I. 1140

Principles of Anatomy: The Abdomen Proper Described and Illustrated by Text and Plates. By William Cuthbert Morton, M.A., M.D. Edin. ... 1141

Nouveau Traité de Chirurgie. (New Treatise on Surgery). Publié sous la direction de A. Le Dentu et Pierre Delbet 1141

Affections Chirurgicales de la Poitrine. (The Surgery of the Chest.) Par Charles Souligoux 1141

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A Pocket Atlas and Text-book of the Fundus Oculi, with Note and Drawing Book. Text by G. Lindsay Johnson, M.A., M.D.Cantab., F.R.C.S. Eng. Drawings by Arthur W. Head, F.Z.S. 1142

The Emergencies of General Practice. By Percy Sargent, M.B., B.C.Cantab., F.R.C.S. Eng., and Alfred E. Russell, M.D., B.S. Lond., F.R.C.P. Lond. Second Edition 1142

Handbuch der Vergleichenden Physiologie. Herausgegeben von Hans Winterstein 1142

The Life-history, Function, and Inflammation of the Appendix. By Edred M. Corner, M.A., M.C. Cantab., F.R.C.S. Eng. 1142

Technique de Stérilisation. Par le Dr. Ern. Gérard 1143

The Educational Treatment of Stammering Children. By T. J. T. McHattie, M.D. Edin. 1143

An Oberland Chalet. By Edith Eliner Wood 1143

REPORTS AND ANALYTICAL RECORDS

FROM

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LEADING ARTICLES.

THE ONE-PORTAL SYSTEM 1145

THE HARVEIAN ORATION 1146

THE NATIONAL INSURANCE BILL 1147

ANNOTATIONS.

The Brussels Surgical Congress 1148

Medical Equipment for Merchant Ships 1148

Infant Mortality in America: An Urgent Call for Action .. 1148

Pruritus Ani 1149

The Use of Baer's Membrane for the Mobilisation of Ankylosed Joints 1149

Physical Training in Secondary Schools 1150

Traumatic Rupture of the Rectus Muscle 1150

The Distribution of Hospital Collections 1151

Syphilis of the Bladder and of the Upper Urinary Passages 1151

Actinomycosis in Norway 1152

Plague and Rats at Shanghai .. 1152

PUBLIC HEALTH.

Reports of School Medical Officers 1154

VITAL STATISTICS:

Health of English Towns ... 1155

Health of Scotch Towns 1155

Health of Irish Towns 1156

SPECIAL ARTICLES.

Medicine and the Law 1144

Royal College of Surgeons of England: Meeting of Council.—Annual Report of the Council 1153

The Services 1156

The Coronation Durbar at Delhi 1161

Some Reflections on the International Hygiene Exhibition at Dresden 1162

Birmingham 1164

Scotland 1164

Ireland 1165

Paris 1166

Berlin 1167

Canada 1167

United States of America 1168

Notes from China 1169

CORRESPONDENCE.

The Election of Direct Representatives on the General Medical Council (Mr. George Brown, Mr. George Jackson, Dr. Arthur Hawkyard, Dr. Sidney C. Lawrence) 1158

Conditions of Practice in South America (Mr. K. Macfarlane Walker) 1158

Another Way of Dealing with Degenerates (Miss Mary Dendy) 1159

The Relation of the Organic Phosphorus Content of Various Diets to Diseases of Nutrition, Particularly Beri-Beri (Dr. H. Fraser) 1159

The National Insurance Bill (Dr. Alfred E. A. Loosely, Mr. T. L. Ashforth) 1160

Strangulation without Vomiting and General Peritonitis Following Paresis of the Gut (Dr. S. F. A. Charles) ... 1160

The Viability of Human Carcinoma in Animals (Professor A. S. Grünbaum) 1160

Note on Two Cases of Tumour of the Prefrontal Lobe in Criminals (Dr. W. C. Sullivan) 1160

The Nomenclature of Spinal Deformities (Mr. Paul B. Roth) 1160

Iodised Phenol in Chronic Discharging Sinuses (Mr. Digby F. B. Cotes) 1161

OBITUARY.

Sir H. J. Blanc, K.C.V.O., M.D. Montpellier 1170

William Richard Huggard, M.D., M.Ch.R.U.I., F.R.C.P. Lond., LL.D. 1170

Charles Vernon Hitchins, M.R.C.S. Eng., L.S.A. 1171

MEDICAL NEWS.

Presentations to Medical Practitioners 1135

Donations and Bequests 1155

University of Glasgow 1161

London School of Tropical Medicine 1162

Pass lists of the Royal College of Surgeons of England and the University of Cambridge 1171

Foreign University Intelligence 1171

Central Midwives Board 1171

Lewes Victoria Hospital 1172

The London Hospital Medical College 1172

British Medical Benevolent Fund Guild: Glasgow Branch 1172

Central London Throat and Ear Hospital 1172

Incorporated Association of Hospital Officers 1172

The Royal Sanitary Institute: South African Branch 1172

Royal College of Surgeons in Ireland 1172

Royal College of Physicians of London 1173

Middlesex Hospital Medical School 1173

Death of Dr. Leonard Keatley Yelf 1173

Society for Relief of Widows and Orphans of Medical Men 1173

Books, &c., received 1173

Appointments 1173

Vacancies 1174

Births, Marriages, and Deaths 1174

Notes, Short Comments, and Answers to Correspondents 1175

Meteorological Readings 1176

Medical Diary 1176

Acknowledgment of Communications received 1178

FOR INDEX TO ADVERTISEMENTS SEE PAGES 2 & 4.

INDEX

MEDICAL AND OTHER BOOKS AND PUBLICATIONS

COVER

ADLARD & SON:— PAGE
Biographical Reminiscences of Sir Samuel Wilks, Bart. 1

BAILLIERE, TINDALL & COX:—
Dieulafoy .. Medicine 1
Paterson .... Gastric Surgery 1
,, ... Jejunal and Gastro-jejunal Ulcer 1
Vincent .... Nutrition of the Infant 1

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Moullin .... Inflammation of the Appendix 1
,, ... Treatment of Gastric Ulcer 1
Worth ..... Squint 1

CHURCHILL, J. & A.—
Cautley..... Feeding of Infants 1
Eden ..... Midwifery 1

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Hunter..... Hæmatology 1

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Moullin .... Enlargement of the Prostate 1
Roth..... Curvature of the Spine 1

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Jones ..... Therapeutic Inoculation 1

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Saunders' New Books 1

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Cautley..... Diseases of Children .. 1

WRIGHT & SONS (BRISTOL):—
Mummery .. Diseases of the Colon .. 1

MEDICAL LIBRARIES, &c.:—
Norwood Sanatorium—
Hare: Inebriety 1

BAILLIERE, TINDALL & COX:— PAGE
Ball ..... Diseases of the Nose, &c. 8
Bidwell .... Intestinal Surgery .. 12
Clarke ..... Congenital Dislocation of the Hip 8
Fourth Report of Wellcome Tropical Research Laboratories, Khartoum.. 5
Freyer ..... Enlargement of the Prostate 8
Giles ..... Abdominal Operations.. 8
,, ... Gynæcological Diagnosis 8
Lake ..... Diseases of the Ear 8
Leedham-Green .... Gonorrhœa in the Male 8
,, ... Sterilisation of Hands.. 8
Mummery .. The Sigmoidoscope 8
Thorne..... Nauheim Treatment of Heart Disease 8

BALE, SONS & DANIELSSON:—
Brown ..... Amœbic or Tropical Dysentery 10
,, ... Sprue and its Treatment 10

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Berkeley & Bonney.... Gynæcological Surgery 11
Bland-Sutton Tumours 11
Candy ..... Manual of Physics 11
Habershon .. Diseases of the Stomach 11
Herman .... Diseases of Women 12
,, ... Difficult Labour..... 11
Luff ..... Gout 11
Luff & Candy Manual of Chemistry .. 11
Marsh & Watson .. Diseases of the Joints .. 11
Morris, Sir M..... Diseases of the Skin 11
Savage & Goodall .. Insanity, &c. 11
Thomson, H. C..... Dis. of Nervous System 11
Thomson, StClair .. Diseases of Nose, &c. .. 11
Treves, Sir F. Surg. Applied Anatomy 11
Treves, Sir F., & Hutchinson Surgical Operations .. 11
Whitelegge & Newman Hygiene, &c. 11
Yeo, &c. .... Medical Treatment 11

CHURCHILL, J. & A.:— PAGE
Allen's Commercial Organic Analys's 6
Clowes & Coleman .. Quantitative Chemical Analysis..... 6
Corbin & Stewart .. Physics and Chemistry 6
Cripps ..... Ovariotomy, &c. 10
Eden ..... Gynæcology 6
Galabin & Blacker .. Midwifery..... 6
Sequeira .... Diseases of the Skin .. 6
Spencer & Gask ..... Surgery 6

FROWDE AND HODDER & STOUGHTON:—
Lockwood .. Aseptic Surgery..... 10
,, .. Clinical Lectures and Addresses in Surgery.. 10

GLAISHER:—
West ..... Granular Kidney, &c... 10

LEWIS:—
Allen..... Vaccine Therapy, &c. .. 3
Crookshank .. Essays and Clinical Studies 3
Gordon..... Diseases of the Nervous System 3
Gould ..... Practitioner's Medical Dictionary 3
,, ... Pocket Medical Dictionary 3
Greeff ..... External Diseases of the Eye 3
Krause..... Surgery of the Brain, &c. 3
Lewers..... Diseases of Women 10
,, ... Cancer of the Uterus .. 10
Murrell .... Cases of Poisoning 3
Ostrom..... Massage 3
Powell, Sir R. D. & Hartley.. Diseases of Lungs, &c... 3
Roberts .... Theory and Practice of Medicine 3
Stoddart .... Mind and its Disorders.. 3

MACLEHOSE & SONS (GLASGOW):—
Barr & Barr. Diseases of the Ear 10

MACMILLAN & CO.:— PAGE
Allbutt, Sir C. Composition of Scientific Papers 7
,, Historical Relations of Medicine and Surgery 7
Brunton, Sir L. .... Disorders of Digestion.. 7
,, ... Action of Medicines.... 7
,, ... Assimilation, &c. 7
,, ... Papers on Circulation.. 7
Lockwood .. Appendicitis..... 10
Milligan & Wingrave.. Diseases of the Ear 7
Mercier..... Conduct & its Disorders 7
New System of Medicine 7
Shenton .... Disease in Bone..... 7

SAUNDERS COMPANY:—
Bandler .... Vaginal Cœliotomy 9
Bosanquet .. Spirochætes..... 9
Cabot ..... Differential Diagnosis.. 9
Oertel ..... Bright's Disease..... 9
Smith ..... What to Eat and Why.. 9

SPRAGUE & CO.:—
Ernst..... Orthopædic Apparatus Guide 10

WRIGHT & SONS (BRISTOL):—
Fortescue-Brickdale.. Newer Remedies 8
Index of Treatment 12
Lejars' Urgent Surgery 8
Love..... The Deaf Child 8
Melville-Davison .. Ships' Hygiene 8

MEDICAL LIBRARIES, &c.:—
Baker, Birmingham—Book Bargains.. 12
Beasley & Ketley—Stammering 10
Behnke—Stammering 10
Gallaher—Publishers' Remainders.... 10
Matthews Bros.—Wood: Application of Transes.... 10
Squire's Companion 41
,, London Hospitals 41

OFFICIAL AND GENERAL ANNOUNCEMENTS

COVER

OFFICIAL NOTICES:—
Royal Society of Medicine 1

APPOINTMENTS VACANT:—
Addenbrooke's Hospital, Cambridge.. 68
Birkenhead Borough Hospital..... 67
Birmingham City Asylum 66
Birmingham Ear and Throat Hospital 68
Bristol General Hospital..... 69
Bristol Royal Infirmary 67
Bury Infirmary 69
Cardiff Infirmary..... 67
Carnarvonshire and Anglesey Infirmary, Bangor 68
City of Manchester..... 69
County of Lanark 69
County Council of Surrey Education Committee 66
Croydon General Hospital..... 67
Denbighshire Infirmary, Denbigh 67
Devonshire Hospital, Buxton 69
Eastern Dispensary, Bath 68
Evelina Hospital for Sick Children .. 67
Fermanagh County Hos., Enniskillen 68
Glamorgan County Council 67
Gloucester County Asylums 67
Gresham's School, Holt 66
Guest Hospital, Dudley 66
Highlands and Islands of Scotland.... 69
Hospital for Sick Children 67
Huddersfield Royal Infirmary 66
Hull Royal Infirmary 66
Leicester Infirmary 66
Lincoln County Hospital..... 68
Lincoln Mental Hospital..... 68
Liverpool Cancer Research Laboratory 69
Liverpool Eye and Ear Infirmary 67
Manchester Northern Hospital for Women and Children 67
Middlesex County Asylum, Napsbury. 68
Oldham Royal Infirmary 66
Oldham Union Workhouse..... 67
Paddington Green Children's Hosp. .. 68
Parish of Portsmouth 68
Parish of Rousay & Egilshay, Orkney. 69
Poplar Hospital for Accidents..... 67
Poplar and Stepney Sick Asylum 68
Rochdale Infirmary 68
Roxburgh District Asylum, Melrose.. 69
Royal Albert Hospital, Devonport 66
Royal Albert Edward Infirmary, Wigan 67
Royal Devon and Exeter Hospital.... 67
Royal Hampshire County Hospital .. 68
Royal Hospital, Richmond..... 69
Royal Infirmary, Sheffield..... 67
Royal Naval Medical Service 66
Royal Portsmouth Hospital 69
Royal Waterloo Hos. for Children, &c. 66
St. John's Hos. for Diseases of the Skin 66
St. Marylebone General Dispensary .. 66

APPOINTMENTS—(Continued).
Schiff Home for Surgical Convalescents, Cobham 68
Staffordshire General Infirmary 69
Swansea Education Committee 69
University of Glasgow..... 72
Walsall and District Hospital 68
Western General Dispensary, Marylebone-road 66
Westminster Hospital 68
Weston-super-Mare Hospital..... 69

ASSISTANCIES, MEDICAL 69

ASYLUMS, HOMES, &c.:—
Ashwood House, Kingswinford 60
Association of Medical Men Receiving Resident Patients 66
Barnsley Hall, Bromsgrove 60
Barnwood House Hospital 61
Bishopstone House, Bedford..... 60
Brunton House, Lancaster 65
Buntingford House Retreat, Buntingford 63
Camberwell House, Peckham-road.... 60
Cheadle Royal 60
Clarence Lodge, Clapham-park 60
Colthurst House, Warford..... 72
Coppice, The, Nottingham..... 61
Crooksbury Sanatorium, Surrey 64
Dairymple House, Rickmansworth .. 59
David Lewis Colony, Alderley Edge .. 59
Dinsdale Park, Darlington..... 61
Ghyllwoods 63
Grove House, Church Stretton 61
Grove, The, Catton, Norwich 61
Haslemere Nursing Home 65
Haydock Lodge, Newton-le-Willows.. 62
Heigham Hall, Norwich..... 61
Home for Epileptics, Maghull 60
Invereden Sanatorium, Cupar 59
Invernith Lodge Sanatorium, Colinsburgh 63
Kinder-Sanatorium, Arosa..... 65
Kingsdown House, Box 60
Lady Superintendent, Streatham 65
London Fever Hospital 64
London Open - Air Sanatorium, Wokingham 63
Malling Place, Kent 61
Malvern Hydropathic 59
Manna Mead, Blackheath 65
Melbourne House, Leicester..... 59
Middleton Hall, Co. Durham 60
Moat House, Tamworth 61
Mount Pleasant, Wanstead 66
Newlands House, Tooting 60
Newmains Retreat, Lanarkshire..... 62
Nordrach in Wales Sanatorium 64
Nordrach-on-Dee, Banchory 64
Nordrach-upon-Mendip Sanatorium .. 64
Northumberland House, Finsbury-pk. 61
Northwoods House, Winterbourne.... 62
Norwood Sanatorium, Ltd. 62
No. 724, L.O., Strand..... 65
No. 737, L.O., Strand..... 66
Oscs Island, Hebrides 63
Otto House, West Kensington 60

ASYLUMS—(Continued).
Painswick Sanatorium..... 64
Peckham House 62
Plympton House, South Devon 61
Portsmouth Corporation Mental Hos.. 61
Raeburn Sanatorium, Northallerton.. 64
St. Andrew's Hospital, Northampton. 61
St. Luke's Hospital, E.C..... 60
Sanatorium Clavadel..... 65
Springfield House Private Asylum, Bedford 61
Stocker, Craven-street 66
Stretton House, Church Stretton..... 61
The Grange, Rotherham 60
Vale of Clwyd Sanatorium..... 64
Warneford Asylum, Oxford 60
Wye House, Buxton 61
Yarrow Convalescent Home, Broadstairs..... 62

COMPANIONS:—
F. A. S., Tunbridge Wells 70

FINANCIAL, &c.—
Equitable Reversionary Interest Soc. 58

HEALTH RESORTS, BATHS, &c.:—
Smedley's, Matlock 59
The Hall, Bushey 62

HOMES WANTED:—
B. B., Westminster 65

HOTELS:—
Grand Hotel and Belvedere, Davos Platz 65
Hotel Windsor..... 65
Tansley, Guilford-street 66
White Hart Hotel, Margate 66

HOUSE & ESTATE AGENTS:—
Bedford & Co., Wigmore-street 71
Brackett & Sons, Tunbridge Wells.... 71
S. Bridge-street, Burton-on-Trent 71
Elliott, Son, & Boyton, Vere-street .. 71
Ley Clark, Wimpole-street 71
McMillan, Lyminge 71
N. C. S., South Molton-street 71
115, Uxbridge-road Ealing 71
CONSULTING-ROOMS:—
No. 779, L.O., Strand 71
Q., 57, Wigmore-street..... 71

LIFE & FIRE ASSURANCES:—
Clerical, Medical, and General Life Assurance society 58
General Life Assurance Co. 57
Prudential 57

MASSAGE:—
London School of Massage, &c. 59

MEDICAL ACCOUNTANTS, &c.:—
Turner 70

MEDICAL AGENTS:—
Blundell & Rigby 73
Fieldhall, Limited 74
Manchester Clerical, &c., Association. 73
Manchester Medical Agency 73
Medical Agency 74
Needes, Herbert 74
Needes, J. C. 75
Peacock & Hadley 73
Reynolds & Branson 75
Scholastic, Clerical, &c., Assoc. 76
Turner 77

MEDICAL SCHOOLS:—
(LONDON.)
Medical Graduates' College and Polyclinic..... 55
West London Post-Graduate College.. 56
(PROVINCIAL, &c.)
Edinburgh University Residential Medical College 57

NURSING INSTITUTES:—
Army and Navy Male Nurses' Co-operation 58
General Nursing Association..... 58
Harley Institute of Nurses 58
Hospital for Sick Children, Great Ormond-street 59
Leeds Trained Nurses' Institution 59
London Nurses' Association 59
Male and Female Nurses' Co-operation 59
Male Nurses Temperance Co-operation 58
Mental Nurses' Co-operation..... 59
National Hos. Male Nurses' Assoc. .. 59
Nurses' Co-operation, Portland-place.. 59
St. John's House 59
St. Luke's Hospital, E.C..... 58
Temperance Male Nurses' Co-operation 58
The Retreat, York..... 59

OFFICIAL NOTICES:—
City of London Lying-in Hospital 55
Election Address G.M.C.—Jackson.... 57
,, ,, Walker 56
London School of Clinical Medicine .. 57
Medical Graduates' College, &c..... 55
Queen Charlotte's Lying-in Hospital.. 55
Registration of Foreign Degrees 56
Royal College of Surgeons, Edinburgh 72
Royal College of Surgeons of England 56
Royal Institute of Public Health 55
Royal London Ophthalmic Hospital.. 57
Surgical Aid Society..... 56
Western Ophthalmic Hospital..... 55

PARTNERSHIPS & PRACTICES 70

RAILWAY & STEAMSHIP CO.'S:—
New Zealand Shipping Co..... 57

TUTORS & LECTURERS:—
Austin 57
Knight 57
No. 449, L.O. .. 72
Schnelle 10
Weymouth 55

For Index to Trade and Miscellaneous Advertisements see page 4.

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HOEFFTCKE'S EXTENSION APPLIANCES.

DESCRIPTION OF

HOEFFTCKE'S EXTENSION APPARATUS

as applied in the Ambulatory Treatment of Fracture of the Limbs, Tuberculous and Arthritic Disease of Joints.

By C. A. HOEFFTCKE,

21, Woodstock Street, Oxford Street, London.

By Appointment to several Hospitals and Societies.

Extract from BRITISH MEDICAL JOURNAL, *Sept. 30th, 1911.*

"C. A HOEFFTCKE (* ~~Ltd.,~~) (21, Woodstock Street, Oxford Street, London, W.). Orthopædic appliances of all kinds are produced by Mr. Hoefftcke, but what may be regarded as his speciality is the production of splints to enable persons with fractures to walk about during treatment, even if the fractures are those of the lower limbs.

"His work in this direction is markedly successful, and evidence of this was included among his display at Birmingham.

"There were, for instance, photographs and skiagrams of patients under the care of well-known surgeons, which showed the appliances in use and the fractures which they continued to maintain in good apposition despite the fact that the patients were practically using the injured limb. The principle underlying the construction of these splints is also applied to instruments for the treatment of tuberculous joints, especially the hip-joint, without detention in bed. The weight of the body when the lower limb is in question is transmitted straight from the tuber ischii to the ground, and restoration of the limb to the normal length in the case of fractures and abolition of contact between the acetabulum and the head of the femur in cases of hip disease is secured by counter-extension, which likewise has the tuber ischii as its starting point.

"Other good instances of Mr. Hoefftcke's work are his splint for correcting that displacement of the tibia backwards which is so frequent a consequence of tuberculosis of the knee-joint, and his appliance for gradually straightening the knee when the leg has become flexed on the thigh. In both these the correct position is brought about by steel bar traction. A further department is the making of his corsets for lateral curvature and appliances for spinal caries, and examples of these were shown.

"They include devices for securing and maintaining the highest degree of extension naturally available in any given case, and beds moulded precisely to fit the patient's outline, and thus to enable extension to be continued."

* As my work is strictly personal I have taken over all interest in C. A. Hoefftcke, Ltd., so that since Jan. 1st, 1911, it is no longer a Ltd. Company.

In addition to the description of my apparatus in THE LANCET of Jan. 28th, Feb. 25th, March 25th, April 29th, May 27th, June 24th, July 22nd, August 12th, and Sept. 16th, the use of my appliances will be described in THE LANCET on Nov. 25th and Dec. 23rd of this year on the page facing the lecture page of the journal.

I shall always be pleased to send a detailed description with illustrations upon application, but in no case do I supply an appliance without medical supervision.

Miss K. (æt. 9 years).

March, 1911: Patient contracted typhoid fever in Egypt. Femur broken at junction of head and neck through effusion in the joint. Head remained in acetabulum, femur displaced upwards 1 inch; adduction 25°. (See Fig. 1.)

Came to London in beginning of August, and sent to me by family doctor and consulting surgeon.

August 10th: Leg pulled down under an anæsthetic and adduction partly corrected on my Extension table, cast taken for my extension appliance and leg immediately afterwards put in plaster.

August 21st: Hoefftcke's extension appliance put on with 10 lb. extension; patient walked about at once; no pain.

August 25th: Skiagram taken showing neck of femur opposite head, but leg still adducted. (See Fig. 2.)

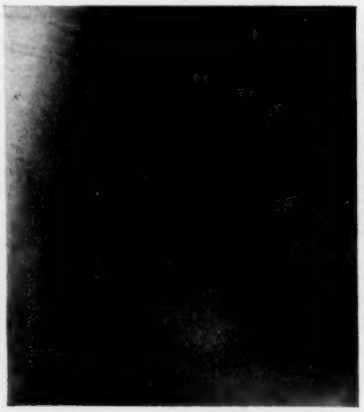


FIG. 1.—Femur displaced upwards 1 inch.

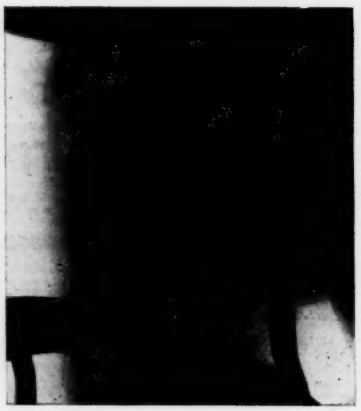


FIG. 2.—Neck of femur opposite head, but leg still adducted.

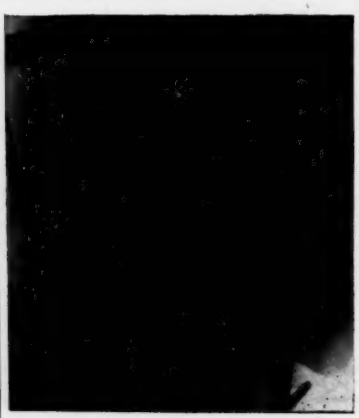


FIG. 3.—Head and neck in beautiful position, signs of union, leg abducted 15°.

August 30th: Appliance re-adjusted for abduction and leg abducted.

Sept. 22nd. (See Fig. 3.) Skiagram taken showing head and neck in beautiful position, and signs of union; leg abducted 15°; no shortening. Child is walking without a limp. Movements good in every direction.

This case shows clearly that movements of joints even in neck of femur fractures need in no way be restricted when treated with my appliance, if the fragments are in good apposition. When the patient is up and about walking with the fractured leg the circulation of the blood and action of the muscles are not impeded, and the result is that in recent fractures the leg does not atrophy, and even in ununited fractures the leg regains its normal size, as in this case where my instrument was applied five months after the fracture.

The father who, with the little girl, is now staying in the country, writes: "The child is so fat and well that we have been obliged to ease the lacing of the thigh bucket."

It is of great importance to use hard material so that the leg cannot be compressed, and to ensure that the weight of the body is wholly transmitted on to the splint by means of the tuber ischii only, as is the case in my appliance.

Needless to say consulting surgeon and family doctor are both very pleased with the result.

Harveian Oration

ON

OLD AND NEW VIEWS ON THE TREATMENT OF CONSUMPTION.

Delivered before the Royal College of Physicians of London on Oct. 18th, 1911,

BY C. THEODORE WILLIAMS, M.V.O., M.D. OXON., F.R.C.P. LOND.,

CONSULTING PHYSICIAN TO KING EDWARD VII. SANATORIUM AND TO THE BROMPTON HOSPITAL.

MR. PRESIDENT AND GENTLEMEN,—Two hundred and fifty-five years have elapsed since William Harvey instituted this festival, directing that a Fellow of the College shall be appointed to make an oration in commemoration of all the benefactors of the said College, "with an exhortation to all Fellows and Members of the said College to search and study out the secrets of Nature by way of experiment; and also for the honour of the profession to continue in mutual love and affection among themselves, without which neither the dignity of the College can be preserved nor yet particular men receive that benefit by their admission into the College which they might expect, ever remembering that 'Concordiâ res parvæ crescunt, discordiâ magnæ dilabuntur.'" Such are the words of Harvey, and such are the precepts which this College has, to the best of its ability, endeavoured to obey for centuries.

We have had many and distinguished benefactors, and these have been duly celebrated in the various orations, but as Harvey, by his immortal discovery, has outshone all the other luminaries, and as he was the founder of the institution, the numerous orations have been, for the most part, dedicated to the celebration and exposition of his magnificent labours and achievements. When we bear in mind the numbers and the distinction of the past orators and the many periods of history in which they lived it will be obvious to all here to-day that it is impossible for me to say anything regarding the discovery of the circulation which has not been already said; for again and again the Harveian orators have eloquently set forth its originality and importance, the steps by which it was attained, and the work of previous labourers in the same field.

When you, Sir, appointed me Harveian orator and conferred on me the highest honour you have to bestow in this College, you accompanied the command with a desire that, after due and proper reference to the work of our great benefactor, I should dwell more particularly on the subject to which I have devoted a large portion of my life—viz., tuberculosis; and I will endeavour to carry out your wishes to the best of my ability.

First, to comply with my orders, let us briefly contemplate the state of knowledge concerning the circulation of the blood before Harvey commenced his investigations.

KNOWLEDGE OF THE CIRCULATION IN THE EARLY TIMES.

Aristotle had taught that in man and the higher animals the blood was elaborated from the food in the liver, whence it was carried to the heart and distributed through the veins over the body. His successors of the Alexandrine School of Medicine, Erasistratus and Herophilus, further amplified his system, and explained that while the veins carried blood from the heart to the members, the arteries carried a subtle kind of air or spirit. According to Dr. Pye-Smith's admirable epitome of the subject, only two changes had been made, for the practical physician, in this theory of the circulation between the Christian era and the sixteenth century.

Galen had discovered that the arteries were not, as their name implies, merely air tubes, but that they contained blood as well as vital air or spirit, and it had been gradually ascertained that the nerves (*νεῦρα*) which arose from the brain and conveyed animal spirits to the body were different from the tendons and sinews (*νεῦρα*) which attach themselves to bones.

The state of knowledge may be summarised as follows:—

1. At the time of Linacre (1524) physicians knew that the blood was not stagnant in the body, for this had been apparent even to the ancient augurs when they inspected the entrails of a victim and, as Dr. Pye-Smith remarked, to every village barber who "breathed" a vein; but no one had a conception of a continuous stream returning to its source—i.e., of a circulation in the true sense of the word—either in the system or lungs, for they were only cognisant of some slow and irregular movement of the blood.

2. Physicians, before Harvey, supposed that one kind of blood flowed from the liver to the right ventricle of the heart and thence to the lungs and the general system by the veins, and that another kind flowed from the left ventricle to the lungs and general system by the arteries.

3. They supposed that the heart's septum was pervious and allowed blood to pass directly from the right to the left side.

4. They had no conception of the functions of the heart as the motor power of the movement of the blood. They doubted if its substance were muscular; they supposed its pulsations to be due to the expansion of the spirits it contained. They believed the only dynamic effect which it had on the blood to be that of sucking it in during its active diastole; they supposed the chief use of its constant movements to be the due admixture of blood and spirits.

When we come to the sixteenth century we find that Jacobus Sylvius discovered the valves of the veins, more fully described later by Fabricius, and that Vesalius ascertained that the septum between the right and left ventricle was complete in the adult. Servetus, whose works, having been burnt, were probably never seen by Harvey, had certain theories of the existence of the lesser circulation, which were confirmed later by Realdus Columbus, for the latter taught that blood and spirits pass from the right to the left ventricle, not through the septum, but through the lungs.

DISCOVERY OF THE MECHANISM OF THE CIRCULATION BY HARVEY.

Such was the state of knowledge when Harvey commenced his long and painstaking series of researches and observations, and he prefaces his account of them with the following words, with which all students of cardiac pathology have probably some time or other felt sympathy:—

> When I first gave my mind to vivisections as a means of discovering the motions and uses of the heart, and sought to discover these from actual inspection and not from the writings of others, I found the task so truly arduous, so full of difficulties, that I was almost tempted to think with Fracastorius that the motion of the heart was only to be comprehended by God. For I could neither rightly perceive at first when the diastole took place, nor when and where dilatation and contraction occurred by reason of the rapidity of the motion, which in many animals is accomplished in the twinkling of an eye, coming and going like a flash of lightning, so that the systole presented itself to me now from this point, now from that; the diastole the same; and then everything was reversed, the motions occurring as it seemed, variously and confusedly together.
>
> At length by using greater and daily diligence, having frequent recourse to vivisections and employing numerous observations, I thought I had attained to the truth that I should extricate myself and escape from this labyrinth and that I had discovered what I had so much desired, both the motion and the use of the heart and arteries. Since which time I have not hesitated to expose my views upon these subjects, not only in private to my friends, but also in public in my anatomical lectures, after the manner of the Academy of old.

Then after many years of demonstrations, in his Lumleian lectures, he published his well-known "Exercitatio de Motu Cordis et Sanguinis," a work of 67 pages, marvellous for its conciseness, in which he proves for all time—

> (1) That it is the contraction, not the dilatation of the heart which coincides with the pulse, and that the ventricles, as true muscular sacs, squeeze the blood which they contain into the aorta and pulmonary artery; (2) that the pulse is not produced by the arteries enlarging and so filling, but by the arteries being filled with blood and so enlarging; (3) that there are no pores in the septum of the heart, so that the whole blood in the right ventricle is sent to the lungs and round by the pulmonary veins to the left ventricle, and also that the whole blood in the left ventricle is again sent into the arteries round by the smaller veins into the venæ cavæ, and by them to the right ventricle again, thus making a complete double "circulation"; (4) that the blood in the arteries and that in the veins is the same blood; (5) that the action of the right and left sides of the heart, auricles, ventricles, and valves is the same, the mechanism in both being for reception and propulsion of liquid and not of air, since the blood on the left side, though mixed with air, is still blood; (6) that the blood sent through the arteries to the tissues is not all used, but that most of it runs through into the veins; (7) that there is no to-and-fro undulation in the veins, but a constant stream from the distant parts towards the heart; (8) that the dynamical starting-point of the blood is the heart and not the liver.

One part of the circulation Harvey did not discover—viz., the capillaries. He had demonstrated the communication between arteries and veins in three situations—the cho oid plexus, the spermatic vessels, and the umbilical vessels—but having no microscope he had to leave the discovery of the

capillaries to others, and four years after his death Malpighi, by the use of the newly invented microscope, showed in the lungs of a frog how the blood passes from one set of vessels to the other. Thus was the wondrous cycle made complete and the circulation of the blood, both lesser and greater, manifested to mankind.

Though Harvey's discovery was attacked and subjected to the severest criticism he lived to see it firmly established in the annals of medicine and to witness the conversion of the greater number of his opponents, but this is not to be wondered at when we consider the mass of evidence from observations and experiments on all classes of creation on which the discovery rests, the splendid and convincing logic of Harvey's arguments, and the modest and unpretending simplicity with which the discovery was put forward.

SOME RESULTS OF THE DISCOVERY.

With your permission, Mr. President, let us now picture Harvey contemplating some of the scientific truths which have been revealed as the result of the great discovery. Harvey himself sanctions such speculation, for in his second disquisition to John Riolanus, Junior, he remarks "how speedily is pain relieved or removed by the detraction of blood, the application of cupping glasses, or the compression of the artery which leads to the part. It sometimes vanishes as if by magic." He then refers us to his medical observations where his views will be found at length exposed and explained, observations which were, alas, destroyed when his house was sacked by Cromwell's soldiers. He could then see local abstraction of blood and the use of the tourniquet set forth, but when our great master glanced over ages to come he would soon have come upon a harvest of new facts, physiological, clinical, pathological, and therapeutical, which might all be traced to his grand discovery! What would he have thought of the phenomena of embolism of the arteries, which is the key to so many conditions of the brain and other organs, or again, of thrombosis and the inflammatory conditions of the walls of the veins and their effects on the circulation?

How delighted Harvey would have been with the discovery of mediate auscultation by Laennec and the consequent provision of a ready method for ascertaining and of estimating the sounds and murmurs of the heart! With what interest would he not have followed the experiments carried on in this city by Hope, C. J. B. Williams, and Glendinning, which, to use the terms of the report, concluded "that the first or systolic sound is essentially caused by the sudden and forcible tightening of the muscular fibres of the ventricles when they contract, and that the second sound, which accompanies the diastole of the ventricle, depends solely on the reaction of the arterial columns of blood on the semilunar valves of the arterial orifices."

Harvey would also have welcomed the graphic method introduced by Ludwig and his disciples and applied by Volkmann, Chauveau, and Marey to the registration of the pulse in the form of the cardiograph, sphygmograph, and to the measurement of the blood pressure, and probably, if he could have availed himself of such help, he would further have enriched our field by fresh discoveries of no small importance.

When we come to the practical uses of the knowledge of the circulation, what would Harvey not have thought of transfusion of blood, of the administration of anæsthetics, of hypodermic injections, &c., all which depend on this knowledge. Transfusion of blood[1] is only used in extreme and exceptional cases, and then is a procedure fraught with some danger, but the administration of anæsthetics is one of the greatest boons that have ever been granted to human and animal suffering, and has, in Sir James Paget's words, more than any other discovery, added to the sum of human happiness.

> Past all counting is the sum of happiness enjoyed by the millions who for the last years have escaped the pains which were inevitable in surgical operations, pains made more terrible by apprehension, more keen by close attention, sometimes awful in a swift agony, sometimes prolonged beyond the most patient endurance and then renewed in memory or in terrible dreams.

What a delight to Harvey to feel that his discovery had been the foundation of such blessed advances in medicine and surgery!

[1] Transfusion of normal saline solution is practically free from danger, and has proved of the greatest value in saving life in cases of profuse hæmorrhage.

Intravenous injections of medicines, according to Sir Lauder Brunton, were first practised by Sir Christopher Wren, the famous architect of St. Paul's, who was a medical graduate of Oxford and a very successful experimenter, and, according to Bishop Spratt,[2] "by his injections divers creatures were immediately purged, vomited, intoxicated, killed, or revived according to the quality of the liquor injected." Intravenous injection was certainly an outcome of Harvey's discovery, and the process has been perfected by successive experimenters, and largely employed. But perhaps more important and certainly more useful has been hypodermic injection, the first instrument for which was devised by Dr. Alexander Wood, and which is so simple a procedure that it is employed not only by medical men and nurses, but too frequently by patients themselves and often to their disadvantage. Not only are drugs of various kinds administered in this way, but the different vaccines, tuberculin, and the like, and this method to which Harvey's discovery opened the door presents a vista of possibilities of which the master could hardly have dreamed.

TUBERCULOSIS.

I will now proceed according to your wishes, Mr. President, to give some account of the knowledge of tuberculosis which existed at the time of Harvey, and, with your permission, will trace the steps by which that knowledge has been extended and increased in the centuries which separate us from Harvey. The tale is not altogether a pleasant one, but one moral, at any rate, can be drawn—viz., that no satisfactory progress can be made in the investigation of disease unless the Harveian system of searching out the secrets of nature by way of experiment is employed.

SCROFULA.

When I take up my parable concerning tuberculosis of various kinds a smile of contentment would, I think, spread over Harvey's philosophic countenance as he realised the successive advances in knowledge; for in his time the principal treatment for "les scrofules dites écrouelles"—i.e., cases of scrofula or king's evil—was the royal touch, which was held to be of special virtue when the sovereign had just been consecrated. One of the first acts of Henry IV. of France when he entered his new capital, Paris, was to administer his royal touch to 600 scrofulous patients who flocked to him. According to Laurens, who published a book in 1609 on the subject, and also according to Professor Landouzy, to whom I am much indebted for information, the king's evil was regarded as a disease both hereditary and contagious, for the suppurating sores were held capable of contaminating healthy people, and their healing was difficult. In 1645 a pious lady founded in the Isle of France a hospital dedicated to St. Marcoul reserved for contagious scrofulous cases (*reservé au mal des écrouelles qui se communique*). The practice of the royal touch began in France with Clovis and in England with Edward the Confessor, and continued to a late period, in France till Charles X. (1824). In Spain the practice was in great vogue, and the Spaniards who were scrofulous would crowd to any city visited by their king for "*le Roy les touchant, Dieu les guérit.*" According to Dr. Pettigrew,[3] in no reign in the history of England did the practice prevail to such an extent as it did in that of Charles II., and it is not a little remarkable that more people died from scrofula, according to the bills of mortality, during this period than in any other. It was even recommended by the faculty, for at the instigation of Sir John Floyer, a physician of eminence, Samuel Johnson was "twice touched by Queen Anne," and as Boswell remarked "evidently without success." Both William III. and George I. declined to touch for king's evil, the latter referring the child of an English gentleman to the Pretender as possessing the hereditary power of the Stuarts. The English gentleman took his advice. His son was touched and recovered, and the father was converted to the Stuart cause.[4]

I will say no more on the king's evil, as it has been the subject of the Fitz-Patrick lectures at the College this year and has been ably and exhaustively treated by Dr. Raymond Crawfurd, whose book I have read with much interest.

[2] History of Royal Society of London for the Improving of Natural Knowledge, by T. Spratt, late Bishop of Rochester.

[3] Sir Richard Quain's Harveian Oration, 1885, p. 13.

[4] Chambers's History of the Rebellion.

SOME EARLY WRITERS ON TUBERCULOSIS.

Harvey's writings do not contain many references to tuberculosis, though it is possible the lost "Medical Observations" treated of the subject, but I have taken the pains of going carefully through that remarkable document the "Prælectiones Anatomiæ" published by the College, which owing to the deciphering skill of Mr. Scott of the British Museum and the liberality of the College, supplies us with Harvey's Latin notes of his famous lectures, interspersed with sundry English expressive annotations. These contain much that is remarkable and instructive, but I failed to find any reference to consumption or other forms of tuberculosis. The "prælectiones" contain a good description of the anatomy of the lungs and of the process of respiration—so that, although we are acquainted with Harvey's views on many diseases, we do not know what doctrines he held on tuberculosis.

The first writer on this and other kindred subjects after Harvey's period was Dr. Christopher Bennett (Benedictus), a Fellow of this College, who published (in 1656) a little book in Latin entitled, "Tabidorum Theatrum sive Pthisios Atrophiæ et Hecticæ Xendochium," which gives an account of several forms of tabes or wasting, and devotes some 30 pages to phthisis, basing the diagnosis of that disease on the character of the sputum, its frequency, the fact of its being tinged with blood, the pains in the chest and the shortness of breath, and colliquative night sweats. He dwells on the weak, small, and frequent pulse, on the falling off of hair and the curving of the nails, and above all on the so-called "Hippocratic" countenance, "seu ipsa mortis imago, viz., facies lurida ac emortua, oculi subsidentes, nares acutæ, gena depressiores, collapsa tempora, corpusque totam strigosum sceleto finitimum." And to complete the horrors of the poor patient he adds as a characteristic, "omnium virtutum deficientia." The descriptions are picturesque, though often obscure, but the treatment proposed is bleeding, cough mixtures, and inhalations with hygienic and dietetic rules, some of the latter excellent, but there is no mention of fresh air, tonics, or exercise.

MORTON'S "PHTHISIOLOGIA."

The next work of importance on consumption in this country was published at the beginning of the eighteenth century, to wit, Richard Morton's "Phthisiologia, or Treatise of Consumption." It was originally published in Latin, afterwards translated into English, and ran through more than one edition, being evidently widely read and approved in the eighteenth century. The author treated of "Consumptions," not only of pulmonary consumption, but of many kinds of wasting disease, such as that arising from discharging abscesses, from diabetes, from loss of blood, and from excessive diarrhœa due to various causes, but he devoted his chief attention to pulmonary consumption, of the acute forms of which disease he certainly was an attentive observer, and had a considerable experience. Some of his distinctions are shrewd, such as those between the different kinds of cough prevailing in consumption and catarrh, and his remarks on the "prognosticks" are occasionally quite sound, as, for instance, "every Consumption, though it be cured, is apt to return, and he that has once been in a Consumption, unless he governs himself very regularly, falls back into the same Condition, even upon the least Occasion. For not only the Lungs, being already impaired by a former Attack from the Distemper, are the more apt to receive a new Impression, but there is likewise a greater Inclination and Disposition to this Distemper from the Habit of the Body itself in these, than in other Persons. Yea, moreover, even after the most perfect Cure of a Consumption, there is reason to suspect that there are some crude Tubercles yet remaining, which at length may, by often meeting with an Occasion, be inflamed, and ripen into Apostemes, and so at last become Ulcers." What, however, can we say of his view of the etiology as thus set forth: "The cause of a Consumption of the Lungs in general is a vitiated Disposition of the Mass of Blood and of the Spirits in the Nerves, contracted gradually from several procatartick or predisposing Causes, in which the sharp or malignant Serum or Water of the Blood being separated by the soft and glandulous Substance of the Lungs, does stuff, inflame, and at length also exulcerate the Lungs themselves, which is the immediate Cause of this Distemper." Morton maintained that the dry cough of consumption was caused by tubercles in the lobes of the lungs which cause a tickling in the upper part of the windpipe, and stated that the same dry cough may be caused by "chalky stones" generated in the substance of the lungs. He also observed the same symptoms arising "from 3 Nails, that slipt by Chance" (as the person was laughing) "through the Windpipe down into the Lungs and Continued for a whole Year, the sick Person being in other respects very well"! Morton was a believer in the doctrine of phthisis ab hæmoptoe and does not seem to attribute the hæmoptysis to pre-existing tubercle. He also gives illustrations of phthisis by contagion for which, according to him, the prognosis is very unfavourable. Morton's pathology is very obscure and somewhat indefinite, but when we come to treatment of his cases, most of which are acute, he begins by bleeding "to prevent the Hectick and colliquative Heat or Catarrhous State of the Blood"; then, in order to carry off the load of the dispirited and diseased humours lodged in the habit of the body with convenient medicines, he recommends vomits, purges, diuretics, and sweating medicines. Finally, he administers woodlice, crab's eyes, the simple powder of crab's claws, red coral, and white amber in the form of powders or julep to "temper the Sharpness of the Blood." Poor consumptive, who might well exclaim with the Frenchman, "Laissez-moi mourir, mais ne me tuez pas!"

TREATMENT ADVOCATED BY SYDENHAM.

Sydenham,[5] the great physician of gout and fevers, dismisses phthisis in a few pages of his epistles. After a short and rather striking sketch of an advanced case he describes a less acute case, and considers that the treatment "which would suffice would be to abstain from meat and wine for a few days and to take a balsam of sulphur and anise with sugar in the form of tablets and then a cough mixture of oil of sweet almonds, syrup of maidenhair, and syrup of violets; this to be taken off a stick of liquorice. If the cough do not yield to these remedies, or if it have arisen from peripneumony or pleurisy, or is accompanied by fever, and this is generally the case, it is folly to trust to pectorals," the disease must be attacked by bleeding and purging; but if, "notwithstanding the latter method, the cough not only continue, but do shake the lungs as to have paved the way for phthisis," he recommends balsam of Peru; but Sydenham concludes "that of all the remedies for phthisis, long and continued journeys on horseback bear the bell, in respect of which must be noted, that if the patient be past the prime of life, more exercise of the sort in question must be taken than if he was a youth or boy. Bark is no surer a cure for ague than riding for phthisis."

LATER VIEWS.

In Mr. Ancell's[6] "Treatise on Tuberculosis" (1852) will be found a list of the different theories which have prevailed in bygone ages to explain the occurrence of tuberculous diseases. These are 54 in number and extend from the time of Hippocrates to that of Dr. Hughes Bennett, and they are as diverse as they are numerous. They show the large amount of attention bestowed on the subject in all ages and, in many cases, testify to the lively imagination of their authors. Most of these theories refer the cause of consumption to errors of digestion and errors in the formation of the lymph or chyle, or blood, or to defective respiration, or they assign an origin from inflammation, and as a rule mistake predisposing causes for the *vera causa*, which, though long suspected, was never actually discovered till Robert Koch appeared on the scene.

Laennec's benefit to this department of medicine was twofold. He successfully applied his great discovery to the clinical phenomena of pulmonary consumption and he also gave us the first good account of the morbid anatomy of tubercle, and insisted on what has been definitely proved since his time—viz., on the unity of the disease.

Matthew Baillie had in 1795, from observations on children, stated that tubercles were the essential cause of consumption and demonstrated their seat in the cellular tissue, distinguishing them from lymphatic glands, but the first to properly describe miliary tubercle was Bayle, the friend and contemporary of Laennec, and to this day the miliary tubercle found in the serous membranes is called in France "granulations de Bayle."

[5] Works of Sydenham, Sydenham Society, vol. ii.
[6] Ancell: A Treatise of Tuberculosis, p. 552.

Bayle, like Laennec, denied an inflammatory origin to miliary tubercle, and held it to be a product *sui generis*.

Broussais,[7] on the other hand, considered that tubercle had an inflammatory origin and that consumption depended on a chronic phlogosis, inflammation of the lungs, or catarrh, parenchymatous or bronchial, which, if prolonged by the cause that produces it, could impress the lymphatics of the lungs with a certain impulse, leading to the formation of tubercle or various deposits of tuberculous matter.

Anyone studying the writings of Andral and Bayle will soon come to the conclusion that they, with Laennec, had grasped the main truth of the nature of tubercle and its close association with consumption, proving that they were opposed to Broussais's opinion that tubercle originated from inflammation; but, unfortunately, whatever their pathology might be, they, in common with other pathologists of the time, founded all their *treatment* on an anti-inflammatory basis, and did not seem to have been able to contemplate any treatment for any serious disease without anti-inflammatory measures.

TREATMENT BY BLOOD-LETTING, &C.

Concerning blood-letting, Morton, Donar, Mead, Pringle, and Munro all recommended it for the early stages of consumption to subdue inflammation. Cheyne advised bleeding in hæmoptysis, where it certainly has great effect, in order to reduce the inflammatory state of the lungs produced by the irritation of tubercle and to arrest the progress of the disease. Even Sir James Clark, who was a very cautious physician, counsels bleeding under certain restrictions, as the following extract will show. He was of opinion [8]—

> That keeping before us the condition of our patient, the nature of his constitution, and the pathological condition of his lungs, and considering the utmost benefit which we can generally expect to derive from the practice is the removal, or the diminution, of congestion or inflammation, complicated with, and often dependent on, the presence of tubercles, keeping all these circumstances in view, blood may be abstracted with advantage at any stage of consumption, when the symptoms require it. After pulmonary congestion has been diminished by general bleeding, the abstraction of blood by cupping or leeches, where further depletion is necessary, has a very beneficial effect.

Most of the above authorities advised bleeding on the ground of reducing inflammatory conditions of the lungs, but some of the French physicians entertained other views of its possibilities. Laennec's opinions on the subject are highly interesting, and are evidently more shrewd than those of his contemporaries. He says:—

> The most rational indications for the treatment of phthisis are, first, to prevent the secondary eruption of tubercles, as in this case, if the primary tubercular masses were not extremely large or numerous, which they very seldom are, a cure would necessarily take place after they, the masses, are softened and evacuated; secondly, to promote the softening and evacuation or absorption of the existing crop of tubercles.

Laennec remarks that bleedings and derivatives have been used to prevent the development of tubercle, the greater number of physicians, however, not considering these a means of curing or even of preventing phthisis, but only calculated to allay the inflammatory affections with which it is complicated, but he adds that Broussais maintained that by bleeding he stopped the inflammatory conditions and rendered the occurrence of phthisis rare. Laennec himself held that bleeding could neither prevent the formation of tubercles nor cure them when formed. He says: "It ought never to be employed in the treatment of consumption except to remove inflammation or active determinations of blood, with which the disease may be complicated; beyond this its operation can only tend to a useless loss of strength." Laennec doubted if any one of the remedies reported to promote the softening of the tubercles really did so, but he thought the alkalis, including the carbonates of ammonia and soda, helped expectoration. He considered the best means of opposing the disease was by sea voyages or a residence on the sea coast in a mild climate, and he attempted to establish an artificial marine atmosphere in the Clinical Hospital in Paris, where he placed 12 consumptives in a ward the air of which was impregnated with fresh seaweed. He states that in all of these patients the disease remained stationary, and in some the emaciation and fever were sensibly lessened, and that nine left believing themselves to be cured.

[7] Ancell, loc. cit., p. 563.
[8] Treatise on Pulmonary Consumption, p. 340.

Louis seems to have been sceptical about the treatment of phthisis generally, and only believed in palliative measures.

Another method of treatment which was much in vogue in the eighteenth and the beginning of the nineteenth century was by emetics, as we know by the evidence of Morton, Parr, Bryan, Reid, Marryatt, Young, and Sir James Clark himself, for the latter cites the cures of De Vettis at Naples by emetics of tartarised antimony, and states the benefit derived from this form of treatment is chiefly in threatened consumption, explaining that the repeated action of emetics may prevent the deposition, or at least the retention of tuberculous matter in the bronchial ramifications and air-cells, and thus prevent the localisation of the disease.

COMPARATIVE DURATION OF LIFE OF CONSUMPTIVES.

I have dealt rather fully with the treatment of consumption at the time of Laennec, Louis, James Clark, and others, because I wished to show that the short duration of life in their cases was clearly connected with the depressing measures then in vogue, and that the disease was not, as has been urged, of an utterly different type from that which prevails now, when the duration of life is much greater, and this can be proved by a comparison of some of the clinical descriptions. The best evidence on this point is that of Dr. C. J. B. Williams,[9] a favourite pupil of Laennec, who in 1871 gave the following facts:—

> In the first ten years of my practice (1830–40) the beneficial effect of treatment was limited to incipient cases, and especially to those who were able at an early stage to take long voyages, such as those to Australia and to India.

He adds:

> My general recollection of the histories of the developed disease at that time is that of distressing tragedies, in which no means used seemed to have any power to arrest the malady; and life was rarely prolonged beyond the limit of two years, assigned by Laennec and Louis as the average duration of the life of a consumptive.
>
> In the next period of ten years (from 1840 to 1850) a marked improvement took place in the results of treatment, apparently in connexion with the allowance of a more liberal diet, and the habitual use of mild alterative tonics, as they might be termed, particularly iodide of potassium with sarsaparilla, or other vegetable tonics. Several of the early cases recorded were treated in this way and with improved results in respect of the general health of the patients and diminution of cough and expectoration.
>
> It was in the latter half of this period that chemists began to produce cod-liver oil of sufficient purity and freshness to be fit for the human stomach; and I have no hesitation in stating my conviction that this agent has done more for the consumptive than all the other means put together.

TONIC TREATMENT OF PHTHISIS.

When I entered London practice in 1866 the tonic treatment of consumption had commenced, and according to the evidence of the first Brompton Report and of Dr. Hughes Bennett, Dr. C. J. B. Williams, and others, cod-liver oil was at the head of all consumption treatment and was in extensive use in hospital and private practice. The prevalent idea of treatment was, at that time, partly tonic, including a liberal dietary, and partly sedative to subdue symptoms. The climatic treatment was changing from the warm moist atmosphere of Madeira and the cold moist one of Pau to the dry warm and more bracing air of the Mediterranean shores. Sea voyages were still in vogue, and a few patients wintered in Egypt, while the English winter resorts were also in fashion. To live in an equable temperature, to sleep in a well-warmed room, and to winter in a more or less warm climate was the order of the day, and the era of unmitigated open air by day and night had hardly dawned. The Brompton Hospital experiment of sending patients to Madeira and my statistics drawn from my father's cases demonstrated that Madeira was undesirable for nearly all forms of consumption, as in spite of most of these patients being especially selected as suitable, they lost appetite and became languid, while the disease progressed rapidly and excavation proceeded.

That the introduction of cod-liver oil into the treatment of consumption exercised a wonderful effect on the outlook of the disease was well seen in the raised average of life among Dr. Pollock's out-patients at Brompton, in contrast to former estimates, and this seemed due to the oil alone, as these patients enjoyed no other special advantages in the way of food, exercise, climate, or sanitation, and my statistics also showed that the patients who persevered in the use of cod-liver oil at home did better than those who were sent to warm climates for the winter and did not persevere in its use.

In the Medico-Chirurgical Transactions of 1870 were

[9] Pulmonary Consumption, first edition, 1871.

published my statistics on the Duration of Life in 1000 Cases of Pulmonary Consumption among the Upper and Middle Classes. These patients were selected with the limitation of having been under treatment for one year and upwards, thus excluding most of the acute cases, which group was calculated to amount to 3 to 5 per cent. of the whole number. Of the 1000, 198 had died, and the average duration of their life since the onset of the disease was 7 years and 7 months; 802 were living, with a good expectation of further life in 72 per cent., and a present duration of 8 years 2·19 months since the first attack. This was the result arrived at before the era of sanatoriums, high altitude treatment, and vaccines. Now let us consider sanatorium treatment.

INTRODUCTION OF FRESH-AIR TREATMENT BY BODINGTON.

It is well known that the open-air and sanatorium treatment was originated in 1840 by Bodington of Sutton Coldfield and supported by Henry MacCormac, but it had been practically ignored in this country until a much later date and until after it had been adopted by Brehmer of Görbersdorf 15 years after Bodington's time, and later on by Dettweiler of Falkenstein.

It is curious to see in Bodington's original essay on the "Treatment and Cure of Pulmonary Consumption on Principles, Natural, Rational, and Successful," how completely its author grasps the principles of open-air treatment when he says "the only gas fit for the lungs is the pure atmosphere freely administered, its privation is the most constant and frequent cause of the progress of the disease. To live in and breathe freely the open-air without being deterred by wind or weather is the one and essential remedy in averting its progress." Bodington, as the late Dr. Bulstrode,[10] whose admirable Milroy lectures this College had the privilege of listening to some years ago, points out, had a clear insight into the requirements of the consumptive working man, for he says "provision should be made for the employment of the convalescent and cured patients who, if possible, should not return to their former occupation" (presumably an unhealthy one), "but should be employed as agricultural labourers or gardeners." Bodington furnished a suitable house for the reception of patients, engaged a medical superintendent to give them "almost hourly watchfulness," and made all necessary arrangements, but he was before his age. His views were ridiculed, and his sanatorium was soon emptied of patients and converted into a lunatic asylum! He lived long enough to see the establishment and spread of sanatoriums, at least in Germany, where it had been whispered that the need for fresh air was the sorest, and he prophesied that when he was dead and buried perhaps the medical profession would be more disposed to do him some justice than when he lived. Now, as a kind of posthumous justice to Bodington's memory, the City of Birmingham has erected the first municipal sanatorium for consumption in England a few miles from the pioneer's original institution, and Birmingham is now proud of her once neglected son.

SANATORIUMS IN GERMANY.

On German soil the sanatorium idea, after weathering opposition, slowly developed; the first example being Brehmer's at Görbersdorf in Silesia, in which methodical hill-climbing up graduated ascents was specially enjoined with the object of furthering the development of the heart—a small heart, according to Brehmer, being one of the greatest predisposing causes of phthisis. This sanatorium grew and prospered, and at present there are no less than four at Görbersdorf.

Dettweiler, a patient, and afterwards an assistant, of Brehmer, established at Falkenstein, in the Taunus mountains, a sanatorium, where for Brehmer's graduated ascents, he substituted the Liegehalle system, in which patients lie for several hours together in open shelters, and this system continues in general use in German sanatoriums.[11] Dettweiler fed his patients largely, proclaiming the kitchen to be the true pharmacy of the sanatorium, and he established a high ideal for the medical superintendent of such an institution, for he contends that it must be "all in all to him, his Religion, his Politics, his Despair, and his Delight." Dettweiler held for a long time a foremost position as the head of Falkenstein, which was a leading German sanatorium.

Dr. Walther of Nordrach strongly opposed the Liegehalle, which he nicknamed "quarrelling halls"—I presume in consequence of what he observed among the occupants, and he advocated instead a species of solitary confinement during the rest hours, but enjoined out-door walks in all weathers with a stuffing dietary, and his example has been followed in several of the British sanatoriums.

STATISTICS OF GERMAN SANATORIUMS.

Many of these institutions were established in North and South Germany, some for the poor from charitable funds, some for the well-to-do classes as private speculations, and some to supply the requirements of the German Insurance Society, the present result being a total of 137 with 16,548 beds for the working classes alone.

Whatever difference of opinion may exist as to the need for sanatoriums in this country, there is in Germany no doubt about their success, not only for the insured and for workers but for all classes of society. Dettweiler was, I believe, the first to start a sanatorium for the poor at Ruppertshain in the Taunus, and was followed by von Leyden, B. Fraenkel, Pannwitz, and others, who organised Belzig, while Bielefeldt and Gebhart stimulated the insurance companies to erect sanatoriums for their consumptive members, of which at present there exist 38 with 3169 beds for men and 1314 for women. The records of these sanatoriums, kept for a number of years and classified for the Imperial Health Office by Dr. Hamel and Dr. Engelmann, show decidedly favourable results both as regards general and local conditions, but as the German authorities in their statistics make the capacity for work the standard of improvement rather than tabulating cases as arrested or cured, comparison with most of the English statistics is difficult. According to these German tables 44 per cent. male and 51 per cent. female consumptives were capable of work four or five years after leaving the sanatorium. The statistics of the Hanseatic Towns sanatoriums, where the proportion of early cases was apparently greater, give 47 per cent. of male and 57 per cent. of female, and the Prussian and Hessian Railway employees sanatoriums yield still better results, for they show 59·6 per cent. of patients at work five years after leaving the sanatorium. Naturally the results of sanatorium treatment greatly depend on the amount of disease present when the patient is admitted and the length of the consumptive history.

The statistics of the German sanatoriums are instructive and important, as they are based on thousands of cases of the working classes, but as they treat of the subject only from the point of view of capability for work and wage-earning they are incomplete. When a comparison was once attempted between these and my statistics, which are fairly complete, I was asked what proportion of my cases returned to work, and I had to explain that they belonged to a different class and few did manual work as wage-earners, so that a comparison was not possible; but what is really wanted is a whole-life comparison to see how long these patients lived.

ACUTE CASES.

As Sir R Douglas Powell and Dr. P. Horton-Smith Hartley emphasise in their recent work,[12] every effort should be made to persuade those suffering from phthisis to apply for treatment in the early stage, and it will be noted that the result of treatment depends largely on the proportion of early cases, though we must not accept the popular statement that all cases of phthisis, if taken early, are curable. The dictum may be said to be true if applied to the ordinary types of chronic phthisis, but we must except acute cases, which all pass through an early stage to a fatal issue.

Acute miliary tuberculosis for instance, sometimes primary, sometimes secondary, often presents the signs and symptoms of an early case of consumption, but speedily develops and destroys the patient in a few weeks. Acute pneumonic phthisis, or galloping consumption, is another hopeless form, when the patient's power of resistance is feeble and the dose of bacillar poison overwhelming. In the early stages the symptoms are often obscure and mask the true nature of the disease, which declares itself gradually; the lungs become consolidated with tubercle and rapidly break down into suppurating cavities, whole lungs being

[10] Thirty-fifth Annual Report of the Local Government Board: Supplement on Sanatoria for Consumption and Certain other Aspects of the Tuberculosis Question.

[11] Sanatoria for Consumptives, by von Jaruntowsky. Translated by E. Clifford Beale.

[12] Diseases of Lungs, Powell and Hartley, fifth edition, 1911.

destroyed, and the victim perishing in a few weeks or months. It is true that in some of these cases the disintegrating process comes to a standstill and fibrosis sets in, the patient living on with a greatly diminished lung surface, though the disease is incapable of cure. Fortunately, acute tuberculosis and acute phthisis (galloping consumption) form only a very small percentage of the cases of consumption.

SANATORIUMS IN GREAT BRITAIN.

Though the open-air treatment has spread everywhere in Great Britain the number of public and private sanatorium beds is comparatively smaller than in Germany and, exclusive of Poor-law infirmaries, cannot exceed 3000, whereas Germany counts tens of thousands. This is chiefly due to the enormous increase of these institutions under the German Workmen's Insurance Act. We have some very good specimens in this country, as, for instance, King Edward VII. Sanatorium, founded by His late Majesty, an ideal establishment beautifully situated, and Frimley, the Brompton Hospital Sanatorium, well adapted for the working classes, to mention two among many others in the United Kingdom. These institutions are doing untold good, both in the way of treatment and instruction, and recent complaints against sanatoriums seem exaggerated and unreasonable, though they may partly be accounted for by the nature of the cases admitted, which are generally too advanced and fitter for consumption hospitals, and many more such hospitals are needed in this country.

A comparison has recently been made by Messrs. Elderton and Perry, under the auspices of Professor Karl Pearson, F.R.S., between the results from sanatorium treatment and those obtained in pre-sanatorium days by Dr. Pollock and myself. As far as I am concerned, I highly appreciate the care and attention which have been bestowed on my laborious figures, and I am pleased to note that Messrs. Elderton and Perry's conclusions agree so well with my facts; but I do not consider that sanatoriums have been long enough established in this country to furnish the information required for reliable statistics, and I hold that a fair and useful comparison is not yet possible. I would deprecate also comparison of America sanatoriums, such as the Adirondacks, with records of private patients in Great Britain, necessarily under different conditions.

I propose later to offer an opinion as to the needs of this country with regard to sanatoriums, hospitals, dispensaries, and labour colonies, but for the present will only say that the successes achieved at some of the working-class sanatoriums and the results of certain private sanatoriums justify a steady continuance of work which is first curative and secondly educational.

We note how the patient with a limited tubercular pulmonary lesion is removed to the thoroughly hygienic surroundings of a sanatorium and is compelled to live a healthy life, his food, his room, his exercise, his rests being all placed under minute direction. Here he slowly but gradually recovers, losing his symptoms, regaining his strength, until he is able to return home, where he presents himself not only fit to do work but to act as an apostle of fresh air and wholesome living.

GRADUATED LABOUR.

The introduction of a system of graduated labour into the treatment of consumption as a substitute for walking exercise has been an important addition and forms a prominent feature at Frimley, the Royal Victoria Hospital, Edinburgh, Maltings Farm Sanatorium, and at King Edward VII. Sanatorium.

Dr. M. S. Paterson,[13] who has introduced the system so successfully at Frimley, lays down as a condition of any work being undertaken that the patient's temperature shall not reach 99° F. in case of males, or 99·6° F. in case of females, and that if there be any rise of temperature after even the lowest grade of work the patient should be placed in a state of complete immobilisation until the register returns to the normal. It is found that after a few days the same grade is accomplished without rise of temperature, and in a week's time a higher grade is attempted with success, until by degrees the highest is reached and the patient is able to perform several hours of pick-axe, shovel, or wheelbarrow work without any unfavourable symptoms.

There are six grades of work besides walking, commencing with carrying small baskets of earth a certain distance and ending with pickaxe work, shovelling, hauling stones, and general heavy navvy work; while for the women patients the grades of exercise and work are similar, but the baskets and shovels are of smaller size and they are not allowed to work as hard as the men.

Dr. Paterson holds that in these working consumptives there occurs "an artificial inducement of auto-inoculations adjusted to the resisting power of the protective substances, and that it is possible to control the auto-inoculation by complete immobilisation." According to Sir Almroth Wright,[14] "it is by the agency of these auto-inoculations that the protective mechanism of the blood is set in motion, so that whenever bacterial products escape from localised foci and pass into the circulation, intoxication phenomena and immunising responses must necessarily supervene." Thus after inoculation from a tuberculous focus a large production of protective substance is calculated to take place. Whatever the theory may be to account for the change, it is most interesting to see patients become gradually accustomed to labour without any rise of temperature, and while the system does wonders for the bodies and especially for the muscles of our patients, it also has a most beneficial effect on their minds. Depression and gloom give way to cheerfulness and hope. The discovery that they can do honest work without suffering and that day by day their working powers increase has a most encouraging effect on their spirits, which rise proportionately with their returning strength.

TREATMENT AT HIGH ALTITUDES.

Probably one reason why sanatorium treatment was not more quickly taken up in this country was that, at the time, the attention of the medical profession was much occupied in considering the high altitude treatment of consumption, introduced to special notice by Sir Hermann Weber in his well-known paper read before the Royal Medical and Chirurgical Society on May 11th, 1869, which set us about investigating these climates and their effects. In the following summer I visited Davos, and through the kindness of the late Dr. Spengler and Dr. Unger I examined a number of German patients who had passed some months at an altitude of 5000 feet. At the time there were no English, though some had been there during the winter. What I saw of the patients and of the climate induced me to give a full trial to the high altitude treatment for consumption, and I have watched its effects on over 400 of my patients, sending them not only to the mountain resorts of Switzerland, such as Davos and St. Moritz, but also to North and South America and South Africa, and the statistics of most of these cases have been published in my Lumleian lectures delivered before this College on Aero-therapeutics. They confirm the results of Archibald Smith, Jourdannet, Guilbert, Lombard, and of Hermann Weber as regards mountain climate, of which the characteristic features are: (1) diminished barometric pressure and consequent rarefaction of the atmosphere; (2) diathermancy of the air, or the increased facility by which the sun's rays are transmitted; and (3) asepticity or freedom from pathogenic germs, as proved by the researches of Pasteur and others.

The effect of mountain air on the organs and functions of healthy and of sick persons has been ascertained by repeated careful observations to be as follows: the skin is tanned by the solar rays and, according to Dr. Bowles, principally by the ultra-violet rays, in the attenuated atmosphere. The circulation is at first quickened, the heart's impulse becomes more powerful, but the pulse-rate at the end of six or eight weeks falls to normal, or even below normal; the respiration is at first quickened, but after a similar interval it gradually slows and is reduced to normal or below normal. The breathing becomes deeper, the inspiration longer, and the expiration more complete, and thus is explained the slowing of the respiration. There is reduction in the blood pressure and in the amount of urea excreted by the kidneys, but more carbonic acid and water are eliminated by the lungs. When acclimatisation is complete the urea appears in full quantity in the urine, and the blood pressure again increases. Accompanying and exactly coinciding with the reduction in the pulse and respiration the thorax expands in several directions, causing an increase in circumference at various

[13] Auto-inoculation in Pulmonary Tuberculosis, by Marcus Paterson, M.D. 1911.

[14] Studies on Immunisation and their Application to the Diagnosis and Treatment of Bacterial Infections.

levels of from 1 to 3 inches and even more, also an augmentation of the spirometric record and increased mobility of the chest walls.

EFFECTS OF MOUNTAIN CLIMATES IN CHRONIC CASES.

The effect of mountain climates on selected cases of chronic tuberculosis is remarkable. Cough and expectoration vanish. There is considerable gain of weight, the general appearance is greatly changed for the better, and it is difficult to recognise in the bronzed and vigorous individuals the pallid invalids of a few months before. Muscular power is largely increased, and many of the patients walk 10, 15, or even 30 miles a day and climb mountains.

The local improvement is more striking. Tubercle bacilli are generally banished from the sputum. Respiration, at first increased in rate by the elevation, becomes deeper and easier. The physical signs show, in cases of consolidation, resonance over both lungs, the disappearance of all signs of dulness, bronchophony, and crepitation, and the substitution of harsh breathing, like the compensatory breath sound heard over the unaffected lung in pleuritic effusion.

In many of these earlier cases of consolidation the disappearance of the physical signs is so complete that the physician has to refer to his notes to discover which lung was originally attacked.

In softening and excavation cases the improvement takes the form of disappearance of moist râles and often of cavernous sounds, and hyper-resonance becomes evident owing to the large development of emphysema around the lesions.

Of all my statistics of consumptive patients the high altitude cases yielded the most favourable results and, what is most important, showed the fewest relapses.

The climate of high altitudes does most for the tubercular consolidation patients, for a large proportion of these become cases of arrest. Those with limited cavities do not derive the same amount of advantage as patients with only consolidations, though they also are much benefited.

I am glad to find that my favourable experience of the high altitudes is confirmed by the statistics of the Basel-Davos Sanatorium at Davos (5200 ft.). Comparison with the German sanatoriums before alluded to, the proportion of severe cases being much the same in both institutions, shows that the percentage of patients able to work five years after their discharge is to the advantage of the Swiss, the Swiss capables being almost double those from the German sanatoriums.

SERUM AND VACCINE TREATMENT.

I must now say a word on the treatment of consumption by anti-tuberculous serum and vaccines.

Many attempts have been made to produce an anti-tuberculous serum by inoculating with tuberculin animals believed to be immune from tubercle, and then using the serum of that immune animal for hypodermic injection into consumptive patients. This was done in France by Richet and Hericourt, by Bouchard, Daremberg and Bernheim, and by Marmorek, in Italy by Maragliano, and in the United States by Trudeau and Baldwin, Sternberg, and others, also by Dr. Horrocks and myself at the Brompton Hospital under the auspices of the Lister Institute, but though we all succeeded in obtaining a special serum and scored a certain amount of success this was never sufficient to warrant perseverance on a large scale on my part.

Vaccines, in the form of tuberculin, were started by Koch himself, as we know, in 1890, and the first form known as the old tuberculin had an extensive trial in most countries. This old tuberculin was pronounced to be a failure by the majority of observers and, according to the Brompton Hospital Report on the cases treated in the wards, the tuberculin caused breaking-down of the tubercular masses in the lungs and the formation of cavities, and even sometimes led to the extension of the disease; but it was noted later on that this appeared to be often followed by contractile changes due to increase of fibrosis. I was one of those who drew up this Report and I visited Professor Koch at Berlin to obtain his instructions as to the carrying out of the tuberculin treatment, so that the experiments should be fairly tried. My colleagues and I tested it both in hospital and in private practice, and came to the conclusion that it did more harm than good, and this was the general verdict, confirming that of Koch's own colleagues, Virchow, Gerhardt, von Leyden, Senator, and Ewald.

But it has since been suggested that Koch used too large a dose of tuberculin, producing a powerful reaction, which is better avoided, and that a smaller dosage is desirable. There are now several tuberculins, two of which, T.R. and B.E., have different effects from the old tuberculin of Koch, and these are generally employed in greatly reduced quantities. My colleague, Dr. Hector Mackenzie, who has a large experience on the subject, reports: "Whether one uses old tuberculin T.R. or B.E. for treatment the initial dose is about the same, 0·00001 c.c. This is given at intervals of two to eight days. If a local or general reaction occurs the interval should be increased and the dose diminished. The dose is gradually increased, avoiding reaction, until after some months, doses of 0·1 c.c. up to 1 c.c. can be given without local or general reaction." Bovine tuberculin is also used for cases of human tuberculosis.

There is still much conflicting evidence, and medical men are by no means unanimous as to the advantage of tuberculin treatment, yet the testimony of Trudeau, Bandelier, Moller, and Ritter indicates that carefully selected tubercular patients treated in a sanatorium with tuberculin make better progress than similar cases treated in sanatoriums without tuberculin.

It may be that tuberculin, which we know to possess a wonderful faculty for penetrating tubercular tissues, has also the power of exciting the anti-bodies in the neighbourhood, such as the opsonins and other protective substances and of stimulating their production, so that a system of defence is thereby organised. The fact that tubercle bacilli disappear earlier from the sputum during this treatment is very remarkable, and everything points to the necessity of further investigation in the matter. But such investigation ought to be carried on in a hospital or sanatorium rather than at a tuberculin dispensary, where there is no means of observing the effect of the tuberculin on the patient's system or of controlling the inoculations and their results.

EFFECTS OF IMPROVED HYGIENIC CONDITIONS.

To sum up, What are the prospects of the crusade against tuberculosis in this country, and how can we further them? We must bear in mind the blessed agencies of prevention which, when set in motion, go on pursuing their beneficent course independently of fashion and caprice. Such are improved drainage, more cubic space and less overcrowding, better food and more of it, more air and sunlight, cleanliness of house and person, and greater opportunities for play and exercise. It is probable that a large proportion of the two-thirds reduction in our phthisis mortality during the last 50 years is due to such agencies, and as the standard of public opinion is raised these ought to be more widely spread and to act more powerfully. What a splendid effect a good town-planning scheme ought to exercise on the public health! Then comes the education of all classes, including the children, by tuberculosis exhibitions and by popular lectures and tracts, which now permeate and enlighten the country, showing the people how they can help themselves. We may count on these hygienic, sanitary, and educational agencies to contribute effectively to the prevention of tuberculosis and to the further reduction of the phthisis death-rate.

MEANS FOR DEALING WITH CONSUMPTIVES.

And what is our means for dealing with the consumptive patient? The great difficulty, especially among the poor, is to detect and separate for treatment *early* cases of tubercular disease; and here, undoubtedly, the dispensary system introduced by Dr. R. W. Philip is of the greatest use, as home visitation of the consumptives and connecting them with philanthropic and other agencies is thus secured. Out-patient departments of consumption hospitals ought, if well organised, to fulfil the same functions, and it is possible in this way to classify the patients according to their requirements. For when we come to the consumptive patients themselves we most of us find that few are fit for admission into a sanatorium, and many require the care, treatment, and nursing of a hospital. The working classes, and especially those who have families to support, do not leave off work until compelled to do so from sheer inability or unless they have been early alarmed at the danger of persistence in their occupation. Consequently medical men when called in find they have to deal with cases of more or less active disease involving a considerable amount of lung surface and often in advanced stages. The consumption hospital is the proper place for such patients, where

they can be treated with all the approved methods of modern medicine and where they may in time improve sufficiently to be able to benefit by the sanatorium, or where if they deteriorate and sink, their last days can be passed in comfort. Another great advantage of the consumption hospital is that it isolates from the rest of the population those advanced and acute cases which are the most likely to become centres of infection.

England was the first country and London the first city to recognise the need for consumption hospitals, and our metropolis had established four special hospitals before other cities had done anything in the matter.

The sanatorium is intended to receive consumptives in early stages with limited lesions, free from pyrexia and able to take exercise. If such patients are submitted to the complete system of sanatorial treatment for at least six months, though often a longer period may be necessary, they frequently leave the institution with disease arrested, or greatly reduced, and are able to undertake work again. Where, as at Frimley, the mass of patients undergo, during their stay, training in various grades of labour, they generally return to their former occupation, if a healthy one, or change it, if unhealthy, for one more suitable.

Change of occupation is, however, one of the difficulties for the consumptive, for if he returns to an unhealthy calling he may have a relapse, and if he undertakes new and healthy work his earnings will probably be at first too small for his support. In the middle classes, which fill the King Edward VII. Sanatorium, the problem of providing healthy occupation has been largely overcome, and we get excellent reports from old patients who still carry out essential parts of their sanatorium *régime* in their different callings.

Besides home institutions we have now in the Queen Alexandra Sanatorium at Davos a high-altitude sanatorium where with sanatorium life the great advantage of mountain climate is combined.

I am convinced that any comprehensive scheme for dealing with consumption in this country should include the establishment of a large number of consumption hospitals scattered over the country in close connexion with dispensaries and sanatoriums and as a further link in the chain some form of labour colonies and exchanges should be available.

The task of further reducing and abolishing tuberculosis is not a hopeless one, but it does not lie wholly with the doctors. It lies also with those who have it in their power to remove or to lessen the principal causes of tuberculosis—viz., the overcrowding of our cities, the want of open spaces and ventilation, the insanitary houses, the lack of a good supply of water and of pure milk. If all these defects were remedied the number of phthisis cases would be comparatively small. The Government and the local authorities could insist, too, on the removal of advanced cases of consumption to a hospital or infirmary, and thus do away with one chief source of infection, and we should soon see a rapid fall in the number of contact cases and in the mortality tables.

BENEFACTORS DURING PAST YEAR.

And now at the close of my oration I must not forget to mention the benefactors to the College during the past year.

On Oct. 27th, 1910, the Medical Committee of Guy's Hospital, through Dr. Herbert French, presented to the College an excellent portrait of a former President and present Senior Fellow, Sir Samuel Wilks.

Among the books presented were seven valuable manuscripts and two printed books bequeathed to the College by the late Harveian Librarian, Dr. J. F. Payne. Dr. R. Crawfurd gave Prayer Books of Queen Anne and of George I., containing the Service for the Healing, two pamphlets on the King's Evil, and a silver touch-piece of James III., and other old and valuable books were presented by Dr. J. A. Ormerod, Dr. William Ogle, Sir Dyce Duckworth, Sir William Osler, and the present Harveian librarian.

Sir George Sutherland Mackenzie, K.C.M.G., C.B., bequeathed, contingent on a life interest of his two brothers, a legacy of £30,000, free of duty, to the Royal College of Physicians and the Royal College of Surgeons for enabling them to assist students in scientific medical research.

I take this opportunity of recording my obligations to the Harveian Librarian, Dr. Norman Moore, and to the Registrar for kind help in preparing this oration.

I would conclude by exhorting the Fellows and Members of this College to continue in that mutual love and affection which Harvey enjoins, and I would offer my sincere thanks to you, Mr. President, for the great honour you have conferred on me in appointing me Harveian Orator, and to the Fellows and Members for giving me so attentive a hearing.

ON THE RESULTS OF THE MANIPULATIVE TREATMENT OF CONGENITAL DISLOCATION OF THE HIP-JOINT.

BY GEORGE C. E. SIMPSON, B.A., M.B. CANTAB., F.R.C.S. ENG.,

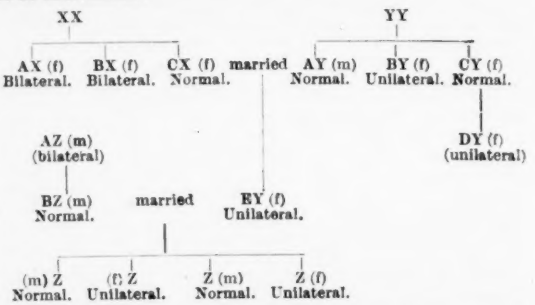
SURGICAL REGISTRAR AND TUTOR, ROYAL SOUTHERN HOSPITAL, LIVERPOOL.

CONGENITAL dislocation of the hip is a condition frequently met with in orthopædic hospitals, but not often seen in general hospitals, and the following short account of the results obtained in the Royal Southern Hospital, Liverpool, may prove of value by emphasising the great advantage of early recognition and treatment of the condition.

The etiology and anatomy of the condition and the main principles of the Lorenz method of treatment are fully described in many of the larger text-books and so only a few points of interest will be alluded to.

According to Hoffa,[1] congenital dislocation of the hip-joint is ten times as common as all the other congenital dislocations together; the cases amounted to about 1 per cent. of all cases in an orthopædic clinic. The condition is far more common in the female sex (87 per cent.) and about one-third of the cases are bilateral, the remainder being equally divided between the two sides.

There are several theories as to the cause of the condition; maldevelopment of the acetabulum and of the femoral head undoubtedly plays a large part and this is aided by muscular action or malposition in utero. Heredity can be traced in some few cases. Dupuytren[2] records a specially notable instance which seems to bear out the Mendelian theories, and is so interesting that I have put it in the form of a table. In the three intermarried families the condition occurred in 8 out of 16 individuals.



In the present series of cases there were three in which mother and daughter were involved, and one where distant cousins both came under treatment. The greater frequency in females is possibly accounted for by some difference in the pelvic girdle of the sex already present in fœtal life.

Anatomy.

In infants the changes are but slight; the acetabulum is not so well formed as usual, and the ligaments of the joint are relaxed. Dissections and radiographs between the ages of two years and seven years show that the head and neck of the femur are smaller than usual, the neck shortened and altered in direction, usually varoid and rotated forward. The epiphysis of the head is imperfectly rounded and displaced (usually upwards), its cartilage is irregular and imperfect. The acetabulum is smaller and shallower than usual, and often has a somewhat triangular shape; it is occupied by fat and fibrous tissue. The posterior and upper parts of the rim are most deficient, and a more or less definite groove leads from here to the irregular smoothed area

[1] Orthopædic Surgery, Stuttgart, 1902.

[2] Quoted by Jones and Ridlon, Contributions to Orthopædic Surgery, p. 332.

which marks the portion of the ilium which is in relation with the femur. The capsule of the joint is thick and roomy, and often has an hour-glass form due to a constriction which separates the acetabular portion from that occupied by the head of the femur; it is usually intact and so intervenes between the head of the femur and the periosteum of the ilium and prevents the formation of a false joint. The posterior ligaments are lax, the ilio-femoral is contracted; the ligamentum teres is usually present and much elongated. The muscles and fasciæ are altered in length, direction, and relationship, to suit the new conditions; the shortening of the hamstrings and adductors is specially important from the resistance it offers to reduction.

Careful consideration of radiographs at this period shows several interesting facts. In cases of unilateral dislocation it may often be noted that the head and neck of the femur of the sound side show in some degree changes similar to those shown on the side of the dislocation. The neck appears to be altered in shape and the epiphysis to be faulty. Further, the ilium seems to form a larger portion than usual of the acetabulum. In other instances the development of the pelvic bones on the dislocated side is seen to be inferior to that on the sound side; this is often well seen in the pubic and ischial rami which may remain largely cartilaginous to the age of 4 or 5.

These appearances give support to the theory that faulty development during intra-uterine life of the bones entering into the articulation is the cause of the condition. Malposition of the limbs or other intra-uterine factors might lead to dislocation and so to maldevelopment of bones on the dislocated side, but could not account for the associated maldevelopment of the bones of the opposite side. On the whole, the fault would appear to be on the part of the femur, pubis, and ischium, rather than on that of the ilium.

In older patients the change in the position of the head of the femur and the associated conditions become more marked. Trauma may intervene and cause rupture of the joint capsule, and if this occur the head of the femur may come into direct relation with the periosteum of the ilium and so lead to the formation of a stable pseudarthrosis. As the head of the femur attains a more dorsal position the relation of the centre of gravity of the body to the inter-femoral plane becomes altered. This naturally applies more markedly to bilateral cases, but is also present to some extent in unilateral cases especially when the patient is standing on the dislocated leg. The centre of gravity falls in front of the plane of support, and to remedy this the lumbar spine is strongly dorsiflexed, so moving the line of gravity back to the plane of support. The new position of the head of the femur and the associated alterations of the muscles combine to rotate the axis of the pelvis forward and downwards, and so increase the lumbar convexity, and may lead to an extreme degree of lordosis. In unilateral cases again the shortening of the dislocated limb is partially compensated for by tilting of the pelvis and lateral curvature of the spine. These conditions affect the growth of the vertebræ and so ultimately become fixed.

Symptoms.

The attention of the parents is usually attracted by the gait at the time the child commences to walk (which may be later than usual). In unilateral cases the child limps on the affected side; in bilateral cases the child walks with a characteristic rolling or waddling gait; lordosis is usually obvious. Examination in unilateral cases shows a shortening of the affected limb, which may in older patients amount to two or three inches; the trochanter is displaced upwards and backwards, and appears prominent (measurement of Bryant's triangle shows this best). Movements, active and passive, are free except abduction which is much diminished, and extension which may be slightly limited. The line of the foot is usually normal. Careful examination reveals on one or both sides the absence of the head of the femur from its normal position and its presence on the dorsum ilii. The latter is best observed with the child lying on its back or on the sound side and the limb somewhat flexed, adducted, and inwardly rotated. Finally, alternate traction and relaxation of the limb with the pelvis fixed gives an up-and-down movement of the femur—the so-called "telescoping."

In most cases the history of deformity from birth, the gait, and lordosis at once suggest the diagnosis, which is confirmed on examination by the freely moveable joint, the telescoping and the abnormal position of the head of the bone.

A radiograph should be taken in every case with the foot and leg well inverted to show the neck of the femur plainly; this not only settles the diagnosis but is of some assistance in prognosis, as it reveals the degree of development of the involved bones.

Prognosis.

Without active treatment no improvement is to be expected; the condition progresses throughout childhood, especially at periods of rapid growth. The deformity usually reaches its maximum development at about the age of 12 or 13. The limp or rolling gait and the lordosis make the patient self-conscious, and handicap them both physically and mentally throughout school life. They are readily tired by walking, and are unable to take part in games with other children, and so not only suffer in their physical and constitutional development but become shut off from the companionship of children of their own age. In addition in some cases the joints become painful after even slight exercise and tuberculous trouble is apt to supervene. In bilateral cases the limbs may become much adducted, and render the walk very conspicuous and disagreeable, and a scissor leg condition may be attained. In adult life the patients are at a disadvantage in obtaining employment—a disadvantage made the more serious by the Workmen's Compensation Act. In other ways, too, their physical deformity becomes a serious matter to that large proportion who are of the female sex. Apart from this, the joint itself may become the seat of arthritic changes which render any movement or pressure on the joint painful and practically incapacitate the patient; this is frequently the case after the age of 30, and may be so severe as to lead the patients to submit to severe operations in order to obtain relief. Fortunately the changes in the pelvis are not such as to lead to trouble during childbirth.

Prognosis with Treatment.

For the conditions arising after the age of puberty various treatments may be necessary (e.g., fixation by apparatus, osteotomy of the femur or pseudarthrosis), but these are beyond the scope of the present paper. No patient in these days should be left to grow up without the condition being recognised and an attempt made to rectify it at the earliest possible age.

Various treatments have been brought forward at different times, but that which should be tried in every case is the manipulative method—bloodless reduction—perfected by Lorenz.[3] This may be supplemented in some of the older cases by preliminary traction by weight or other apparatus. In unsuccessful or recurrent cases it may be supplemented by exploratory operation to discover and remedy any condition which is opposing reduction or interfering with its stability. Thus, an hour-glass contraction of the capsule may be divided, a shallow acetabulum deepened, or a lax posterior ligament shortened.

In a large proportion of cases treated by simple manipulation before the age of nine, a true anatomical reduction with full restoration of function is to be expected. In most of the remainder the head of the femur is moved forward from its unstable position on the dorsum ilii to a position either close to and above, or anterior to, the site of the true acetabulum. In this position the head is fixed by strong ligaments and muscles which pass over it, and a stable and mobile articulation is obtained, so rectifying the limp. The new articulation is close to the normal plane of gravity and so eliminates the lordosis.

In a few of the apparent anatomical reductions there is a well-formed acetabulum and a good joint, but the radiographs show that the acetabulum lies a little above its usual position, and is formed chiefly by the ilium. Physical examination of the patient shows that the trochanter is slightly raised and the head of the femur lies at a higher position than usual and can more readily be detected from the groin. The functional result in these cases is exceedingly good, often giving a limb practically equal to a normal one. I incline to think that these cases should be classified as true repositions, in which the aberrant level of the acetabulum is developed to suit the malformed and malplaced head of the femur.

[3] Manipulation had been used for some time, but had fallen into disuse. Lorenz re-introduced it and improved it, following the main principles described by Paci.

CASE TABLE I.—*Unilateral Cases.*

No.	Sex; age at operation in years; date of operation; number and duration of plasters; calliper duration.	Hip affected.	Movements, &c., at exam., 1909.	Measurements, 1909.					Shortening compared to sound limb.	Functional capacity.	Telescoping.	Lordosis.	Skiagram and remarks.	Classification.	
				Side.	Ant. sup. sp. to int. mall.	Umbilicus to int. mall.	Bryant's triangle. Vertical: horizontal side.	Circumference of thighs at corresponding parts.						Anatomical.	Functional.
					Inches.	Inches.	Inches.	Inches.	Inches.						
A.*	F., aged 12. Untreated. 1909.	Rt.	Flexn and addn good. Extn. 10° short of full. Abdn. 20° allowed. Out rotn. very restricted. Toe points forward.	L.	26½	29	2 / 2½	—	1½	Limp marked; walks and runs as well as a girl of 10. Limb does not tire readily (can walk 5 miles).	Very slight.	Very marked, quite 30°; Scoliosis.	Reduced after traction.	?	?
				R.	25½	27	½ / 3	—							
1	F., aged 3. 1903. Plasters 3, 6 mos.; call. 2 mos.	Rt.	Full free movts. in all directions; toe points forward.	L.	23¼	25	2½ / 2	—	—	No trace of a limp. Limb never gives any trouble.	—	—	Very well formed acetab. and head of femur; angle of neck normal.	Anat. reduct.	Perfect.
				R.	23¼	25	2 / 2	—							
2	F., aged 6. 1908. Plasters 3, 8 mos.; call. 8 mos. (Fig. 4).	Rt.	Full free movts. in every direction; toe forwards.	L.	26	28½	1½ / 3½	13½	¼	Slight trace of limp; walks and runs as well as other girls; can walk over 6 miles. Says she jumps better than others.	—	—	Well-formed head and epiphysis; good acetab.; well-formed joint; marked coxa vara.	Anat. reduct.	Perfect.
				R.	25½	28½	1½ / 3¼	13½							
3	F., aged 5. 1908. Plasters 5, 8 mos.; call. 4 mos., still on.	Rt.	Still wearing call.; full extn. and abdn.; 100° flexn.; slight addn.; toe rotated out 20°.	L.	22¼	24½	2 / 2½	12½	¾	Very slight limp; walks very well in calliper.	—	—	—	Anat. reduct.	Perfect.
				R.	21½	24¼	1¾ / 3¼	11¼							
4	F., aged 2½. 1903. Plasters 2, 9 mos.; call. 1 yr.	Rt.	All movts. equal in range and power in the two limbs; toe points forward.	L.	25	28	2½ / 3½	14¼	—	No trace of a limp; buttocks quite symmetrical; drags foot a little when walking; walks, runs, jumps as well as her comrades.	—	—	Perfect reduction; perfectly formed joint.	Anat. reduct.	Perfect.
				R.	25	28	2½ / 3½	14							
5	F., aged 7. 1908. Plasters 7, 12 mos.; call. now on.	Rt.	At commenct. of call. trmt. fair movt. already present; still stiff from plasters.	L.	23	24¼	2 / 2½	—	¾	No record.	—	—	—	Ant. reposn.	Probably excellent.
				R.	22¼	24¼	1½ / 3½	—							
6	F., aged 4. 1908. Plasters 5, 12 mos.; 2 mos. allowed without call.	Rt.	Full extn., abdn., and addn.; only 100° of flexn.; foot rotated out 30°.	L.	19	21	2½ / 2½	11½	1	Slight limp; walks very well; calliper ordered for fear of accidents.	—	—	Good head and neck; good acetab.; well-formed joint.	Anat. reduct.	Perfect.
				R.	18	20	1½ / 2¼	11							
7	F., aged 3½. 1904. Plasters 2, 9 mos.; call. 0.	Rt.	Full free movts. except extn., which is not quite full.	L.	22½	24¼	2 / 3	14	1	Slight limp; runs and walks well; seldom gets tired.	—	Slight.	(Lost.)	Dorsal disloen.	Very good.
				R.	21	23¼	1 / 3	13							

	F., aged 9. 1903. Plasters 3, 1 yr.; call. 1 yr.	Rt.	Addn. rather limited; 10° fixed flexn.; other movts. free and full.	L.	30½	32	2 / 3½	18	2¼	Limp marked; runs and walks well; tires rather easily.	—	Considerable.	Good acetab. above and overlapping true plane; coxa vara; head of femur poorly formed.	Anat. reduct.	Good.
				R.	28	31	¾ / 4	15½							
	F., aged 3½. 1904. Plasters 2, 9 mos.; call. 4 mos.	Rt.	Some fixed flexn.; other movts. free and full.	L.	24	25	1½ / 2	13	1¾	Limps; does not run much; tires easily.	½ in.	Marked.	No trace of any new acetab.; well formed head of femur on dorsum ilii.	Dorsal.	Poor.
				R.	22¼	24	¾ / 3	11½							
10	F., aged 5. 2nd cousin of Case 3. 1903. Plasters 3, 1 yr.; call. 6 mos.	Rt.	Full free movts. in all directions.	L.	27½	29½	2½ / 2	—	½	Slight limp; walks well; leg aches only after long walk.	—	Very slight.	Head of femur well formed and lies in a well-defined acetab. formed rather largely by ilium.	Ant. reposn.	Excellent.
				R.	27	29½	2 / 3	—							
11	F., aged 12. 1905. Plasters durn. 9 mos.; call. 6 mos.	Rt.	Some fixed flexn.; only 45° flexn. possible; full addn. and abdn.	L.	33	34½	3 / 3	—	3½	Considerable limp; scoliosis very marked; walks very well.	—	Considerable.	Good level but poor articuln.; poor development of head of femur.	Dorsal dislocn.	Poor.
				R.	29½	34	1¾ / 5	—							
12	F., aged 8½. 1903. Plasters 3, 13 mos.; call. 0.	Rt.	Abdn. and addn. full; flexn. to 100°; 10° fixed flexn.; int. rotn. limited; toe points forward.	L.	32	34½	2½ / 4	16	½	Limp slight; walks well; leg does not tire; delicate girl.	—	Slight.	—	Ant. reposn.	Excellent.
				R.	31½	34½	1½ / 4	13							
13	F., aged 12. 1907. Plasters 2, 1 yr.; call. 0.	Rt.	All movts limited; flexn. to 125°; abdn. 20°; addn. 15°; fixed flexn. 15°.	L.	29¾	41¾	2½ / 3½	16½	2	Limp considerable; scoliosis marked; walks fairly well and far.	—	Marked.	False acetab. in high position; poor head to femur; coxa vara.	Dorsal dislocn.	Poor.
				R.	27½	41	0 / 4	14							
14	F., aged 5. 1903. Plasters 4, 1 yr.; call. 1 yr.	Lt.	Full free movts. in all directions; equal to normal limb; toe points forward.	R.	21	23	1¾ / 2½	11	¼	Practically no limp; walks and runs well; leg does not tire.	—	—	Acetab. well formed, but roughened in appearance; head of femur poor; coxa vara; good reduct.	Anat. reduct.	Perfect.
				L.	20½	23	1½ / 2½	10½							
15	M., aged 2½. 1909. Plasters 4, 9 mos.; call. 3 mos.	Lt.	Still in call. therefore stiff; good abdn. and addn.; full extn.; 100° flexn.; toe points forwards.	R.	16½	19½	1¼ / 2	10½	—	Walks well in calliper.	—	—	—	Anat. reduct.	Perfect.
				L.	16½	19½	1½ / 2	10							
16	F., aged 4. 1903. Plaster 1, 12 mos.; call. 1 yr.	Lt.	Full free movts., except slight limitation of abdn.; toe points forwards.	R.	25½	28½	2½ / 4½	15	—	Very slight limp; gets some pain on walking or running far.	—	—	Perfect acetab.; perfect head and neck; well reduced.	Anat. reduct.	Perfect.
				L.	25½	28½	2½ / 3	13¼							
17	F., aged 7. 1908. Plasters 5, 1 yr.; call. 3 mos.	Lt.	Still in call.; extn. and abdn. full; flexn. 100°; addn. a little limited; foot rotated 15° out.	R.	22	25	1½ / 2½	—	—	Still in call.; some pain after long use; crepitus perceptible in joint.	—	—	Very little epiphysis of femur; acetab. and head of femur roughened; arthritis; well reduced.	Anat. reduct.	Good.
				L.	22	25	1½ / 2½	—							
18	F., aged 4. 1904. Plasters 3, 1 yr.; call. 18 mos.	Lt.	Perfect full movts. in all directions; quite equal to normal limb.	R.	24	—	2½ / —	—	1	Slight limp; wears raised boot; walks and runs well; leg does not tire.	—	—	Good head and neck in well-formed acetab., but invading ilium more than normally; very late development of ischium and pubis.	Ant. reposn.	Excellent.
				L.	23	—	1½ / —	—							

CASE TABLE I.—*Unilateral Cases—(Continued).*

No.	Sex; age at operation in years; date of operation; number and duration of plasters; calliper duration.	Hip affected.	Movements, &c., at exam., 1909.	Measurements, 1909. Side.	Ant. sup. sp. to int. mall.	Umbilicus to int. mall.	Bryant's triangle. Vertical: horizontal side.	Circumference of thighs at corresponding parts.	Shortening compared to sound limb.	Functional capacity.	Telescoping.	Lordosis.	Skiagram and remarks.	Classification. Anatomical.	Functional.
					Inches.	Inches.	Inches.	Inches.	Inches.						
19	M., aged 3. 1908. Plasters 3, 7 mos.; calli. 9 mos.	Lt.	Still in calli.; movts. practically full in all directions; toe points forward.	R.	16¾	—	3½ / —	13½	1	Walks excellently, and a good distance.	—	—	Good head and neck; well in; well-formed new acetab., which involves ilium more than normally.	Anat. reduct.	Excellent.
				L.	15¼	—	2½ / —	12¼							
20	F., aged 7. 1902. Thomas's frame 1 yr.; calli. 18 mos.	Lt.	Full flexn. and extn; abdn. and addn. 15-20°	R.	30½	32	2 / 5	16	2¼	Slight limp with ½ in. raised boot; walks well and far; does not tire on walking.	—	—	A well-formed false acetab. above and anterior to normal; coxa vara.	Ant. reposn. (subspinous.)	Excellent.
				L.	28½	31	1 / 2¾	14							
21	M., aged 3½. 1903. Plasters 3, 9 mos.; calli. 9 mos.	Lt.	All movts. full and good; slight fixed flexn.	R.	24	25½	2 / 3	13	1¼	Slight limp with ¾ in. raised heel; runs and walks well; leg tires more easily than rt.	—	Very slight.	Good false acetab.; good head of femur.	Ant. reposn.	Very good.
				L.	22¾	24¼	1½ / 3¼	10½							
22	M., aged 2. 1903. Plasters 3, 9 mos.; calli. 9 mos.	Lt.	Full free movts., except slight limitn. of abdn.; slight fixed flexn.	R.	24	30	2 / 3	13	1	Very slight limp; runs and walks well; does not tire.	—	Very slight.	Good acetab. above and a little dorsal; head formed and articulated.	False joint dorsal.	Very good.
				L.	23	29½	½ / 3½	~~13½~~							
23	F., aged 12. 1902. Frame, 1 yr.; plasters 2, 15 mos.; calli. 0.	Lt.	Good abdn; 10° addn.; 90° flexn. allowed; 10° fixed flexn. present.	R.	33½	35½	2½ / 2	—	4	Wears raised boot but marked limp; scoliosis marked; walks fairly well.	—	Slight.	Femur has a short distorted neck and head; well in acetab.; radiographs just after manip. show fract. of neck.	Anat. reduct.	Poor.
				L.	29½	33	1 / 1	—							
24	F., aged 12. 1904. Plasters 4 15 mos.; calli, 9 mos.	Lt.	Full extn.; good abdn. and addn.; flex. only to 90°.	R.	32	33½	2¼ / 4	—	2½	Slight limp; boot raised ½ in.; can walk a long distance without tiring.	—	Very slight.	A well-formed dorsal acetab.; good head and neck to femur; head just below and behind ant. sup. sp.	Dorsal disloca.	Good.
				L.	29½	32½	0 / 4	—							
25	F., aged 4. 1903. Plasters 2, 9 mos.; calli. 1 yr.	Lt.	Full free movts.; 20° fixed flexn.; toe points a little outwards.	R.	24½	26½	1½ / 3	14	1½	Very slight limp; compensatory scoliosis; runs well; has walked 10 miles; leg tires after a hard day.	¼ in.	Considerable.	Fair acetab. above and behind normal positn.; good head and neck to femur.	Dorsal disloca.	Fair.
				L.	23	25½	¼ / 4	12½							
26	F., aged 4. 1903. Frame 2 yrs.; plaster 1·6 mos; calli. 0. (Fig. 5.)	Lt.	Full free movts., except slight limitn. of abdn. and extn. Foot rotated outwards	R.	24½	27½	1½ / 3	13	1½	Slight limp; runs, climbs, plays games; tires after walking 2 miles.	—	Considerable.	Well formed but varoid head and neck; lying at excell. level opposite old acetab. which is pract. obliterated.	Dorsal disloca.	Fair.
				L.	23	26½	1 / 4½	12							

* Cases A and B (Case Table II.) are included for purposes of comparison—to show corresponding particulars of untreated unilateral and bilateral cases.

											wh'ch is pract. obliterated.		

* Cases A and B (Case Table II.) are included for purposes of comparison—to show corresponding particulars of untreated unilateral and bilateral cases.

CASE TABLE II.—*Bilateral Cases.*

No.	Sex; age at operation in years; date of operation; number and duration of plasters.	Side.	Movements, &c., at exam., 1909.	Measurements, 1309. Ant. sup. sp. to int. mall.	Umbilicus to int. mall.	Bryant's triangle. Vertical : horizontal side.	Circumference of thighs.	Telescoping.	Lordosis.	Functional capacity.	Skiagram and remarks.	Anatomical result.	Functional result.
				Inches.	Inches.	Inches.	Inches.	Inches.					
B	F., aged 13. 1909. Before treatment.	R. and L.	Full flexn. and addn.; 10° fixed flexn.; abdn. permitted to 30°; rotn. good.	32	29½	2 / 4½	—	½	Extreme, nearly 60°.	Rolling gait not marked; cannot walk far; cannot run.	Trochanters lie above the interspinous plane; X ray shows great displacement.	Ant. reposn. effected later on both sides.	— / —
27	F., aged 6. 1904. Plasters 4, 2½ yrs.	R.	Flexn. 90°; abdn. and addn. 10°; 10° fixed flexn.	25¼	29½	1 / 2½	—	—	Not much when standing on this leg.	A very useful limb; walks well on it; does not tire; requires massage.	A good acetab. and head; well in; coxa vara.	Anat. reduct.	Excellent.
		L.	Full flexn.; 25° abdn.; 15° addn.; no fixed flexn.; good rotn.	24	27	0 / 3	—	1	Marked when on this leg.	Limps on left leg, which is fairly useful.	Dorsal; poor acetab.	Dorsal dislocn.	Fair.
28	F., aged 5. 1903. Plasters 4, 1 yr.	R.	Full flexn. and addn.; 15° abdn.; slight fixed flexn.	25	26¼	1 / 3¼	—	—	—	No limp; a very useful limb; does not tire.	Apparently ant. reposn.; excellent level.	Ant. reposn.	Excellent.
		L.	Full free movts. in all directions.	25½	27¼	1½ / 3	—	—	—	A perfect limb; child runs and walks well.	Good head and neck; well in; good acetab.	Anat. reduct.	Perfect.
29	F., aged 7. 1907. Rt. leg; plasters 1 yr.	R.	Full free movts. in all directions.	24½	28	1 / 3	—	—	Not when on this leg.	A perfect limb.	Good head and neck; well in; good acetab.	Anat. reduct.	Perfect.
	1908-9. Lt. leg; plasters 4, 8 mos.	L.	Fairly free movts.; still stiff from plaster.	23	27	0 / 3	—	1	Marked when on this leg.	Stiff from recent plaster.	Dorsal posn.; no articuln.; head, neck, and acetab. appear good.	Dorsal dislocn.	Good.
30	F., aged 3½. 1903. Plasters 4, 16 mos. (Figs. 1, 2, and 3)	R.	Perfect free movts. in all directions.	24½	31	2 / 2½	—	—	—	Walks and runs well; takes part in games; often walks 10 miles.	Perfect articuln.	Anat. reduct.	Perfect.
		L.	Perfect free movts. in all directions.	24½	31¼	2 / 2¼	—	—	—	Slight limp on left leg.	True reduct. but not quite as good as rt.	Anat. reduct.	Perfect.
31	F., aged 4. 1908. Plasters 8, 18 mos.	R.	Movts. and position good; a little stiff from plaster.	19½	22½	1 / 3	—	—	—	Likely to prove a perfect limb.	Head and neck of femur well formed; true acetab., well formed but slightly higher than left.	Anat. reduct.	Perfect.
		L.	Full flexn. and extn.; limb is abdn. 30° and out. rotn. 15°.	19½	22½	1½ / 3	—	—	—	Leg manipulated under anæsthetic; should prove perfect after massage.	A well-formed head, neck, and acetab.; true reposn.	Anat. reduct.	? Perfect.
32	F., aged 3. 1909. Plasters 3, 9 mos.	R.	Full free movts.; toe forward.	17	20	1 / 3	10½	—	—	Should be perfect. Walks well; still slight waddle.	Good head and neck; good acetab. and well reduced.	Anat. reduct.	Perfect.
		L.	Full free movts.; toe forward.	17	20	1 / 2½	10½	—	—	Should be perfect.	Acetab. involves ilium rather more than in a normal joint.	Anat. reduct.	Perfect.
33	F., aged 2. 1907. Plasters 6, 12 mos.	R.	Good flexn. and extn., but some limitation of other movts.	24	26	1 / 1½	13	—	Very slight.	No limp; can run. Walks fair distance without tiring. Should be excellent.	No X ray. Head felt under artery; feels rather superficial and high.	Ant. reposn.	Excellent.
		L.	As right; toes turn in.	23½	25½	¼ / 1½	12½	—	Very slight.	As right.	As right.	Ant. reposn.	Excellent.

In the class of anterior repositions the head is placed more forward in the groin and held apparently by ligamentons structures, no definite acetabulum being usually formed. The results in these cases are functionally but little inferior to those of true repositions. In a very few cases there is a good false acetabulum formed in this position.

In the few remaining cases the dislocation remains of the dorsal type; a fresh attempt may be made, aided if need be by open operation; even, however, should this course not be taken the condition of the patient is generally improved. In some cases a true false joint is obtained close to, but behind, the true acetabulum, and if this be the case the results may be excellent; possibly this results from rupture of the capsule during treatment. In other cases there are, as a general rule, a more stable limb with less limp and less lordosis than in untreated patients.

Treatment at the Royal Southern Hospital, Liverpool.

The cases recorded were treated at this hospital between 1901–1909: some of the earliest by prolonged extension and abduction in a Thomas frame, others by this method followed by the Lorenz method. Since 1903, when Lorenz gave a demonstration at the hospital, his method of treatment has been followed with but slight modification. The details and steps of the Lorenz method are described so fully in the larger text-books of surgery and orthopædics that only a few minor points followed in this clinic will be alluded to. In bilateral cases both limbs are reduced at one operation unless prolonged manipulation is required by reason of age or other difficulty. The plasters are usually closely moulded over a tight-fitting woollen garment, with small pads of wool over the sacrum and iliac spines. If much padding be used the limb may get re-dislocated. The patients are allowed to leave hospital within a week of operation and the parents are told to encourage them to use their limbs. This is facilitated if a strong toy horse or a low chair mounted on wheels be provided on which they can sit astride and propel themselves while still in plaster. The functional use seems to aid in keeping the joint intact and also in moulding and deepening the acetabulum, as Lorenz has pointed out. Every six or eight weeks (longer intervals, three to six months, were used at first) the plaster is reapplied; the limb being—under anæsthetic if necessary—brought down to a more normal position and at the same time inverted, care being taken not to allow a re-dislocation. In from 7 to 12 months the fully extended normal position is attained and, after a further 6 to 8 weeks in plaster in this position, a Thomas calliper splint is fitted and the child wears this for about six months longer, to keep the joint firm while it is first used. Massage and passive movement at this time greatly improve the functional result. In applying the new plasters care is taken to overcome the torsion of the limb and so bring the foot into good position and line; by this means some of the advantages of Lovett's inverted position seem to be gained. In none of the present cases, however, has that method been used, though it is now being tried in some cases.

Dangers of the Operation.

The patients suffer somewhat from shock, but so far there have been no deaths at this hospital from this cause. Bruising and swelling of the ruptured muscles may be troublesome. In older children fracture of the neck of the femur and separation of the epiphysis may occur, as happened in Case 23. This is avoided by care in manipulation and by carrying out the reduction if necessary in two or more stages, extension by apparatus being used in the interval. Plaster sores rarely give rise to trouble.

Note on Royal Southern Hospital Cases.

All patients treated from 1902 to 1909 were communicated with and asked to come up for examination in 1909. Many from change of address could not be traced and others lived at too great a distance to come. Of the 70 cases found in the register whose treatment was completed, 33 reported, and the condition is recorded in the tables. Particular attention was paid to the amount of shortening, the limits of mobility, the axis of the limb, to the gait and attitude, and to the functional value of the limb. Radiographs were taken of nearly all the cases, and a few typical ones are reproduced.

Of 90 cases in all seen from 1902 to March, 1910, 75 (83 3 per cent.) were girls and 15 (16 6 per cent.) boys. Of 60 cases in which it could be determined from the registers, 23 (39 per cent.) were bilateral, 19 (31 per cent.) right, and 18 (30 per cent.) left cases. (See Case Tables I. and II.)

Analysis of Cases and Results.

The 33 cases reported include 40 joints; treatment was commenced at ages from 2 to 12 years; a few are still wearing their callipers, others have been free from treatment for five or six years. The following table shows the anatomical and functional results:—

TABLE I.—*Anatomical and Functional Results.*

Functional result.	Anatomical results.			Total.	Per cent.
	Perfect anatomical reduction.	Stable anterior reposition.	Dorsal dislocation.		
Excellent.	18	9	—	27	67·5
Very good.	—	—	2	2	5·0
Good.	2	—	2	4	10·0
Fair.	—	—	3	3	7·5
Poor.	1	—	3	4	10·0
Total	21	9	10	40	—
Percentage...	52·5	22·5	25·0	—	100·0

In five cases, however, the patients were over 9 years old at the time reduction was attempted, and if these be excluded the figures read:—

TABLE II.—*Anatomical and Functional Results, excluding Five Cases in which the Patients were over 9 years of age.*

Functional result.	Anatomical results.			Total.	Per cent.
	Perfect anatomical reduction.	Stable anterior reposition.	Dorsal dislocation.		
Excellent.	18	9	—	27	77·2
Very good.	—	—	2	2	11·4
Good.	1	—	1	2	
Fair.	—	—	3	3	11·4
Poor.	—	—	1	1	
Total	19	9	7	35	—
Percentage...	54·0	26·0	20·0	—	100·0

For comparison the following results from other clinics are given, only cases without open operation being included.

TABLE III.—*Results from Other Clinics—Cases without Open Operation.*

Clinic.	Number of cases.	Anatomical reduction.	Anterior transposition.	Unsuccessful.
Children's Hospital, Boston, 1896–1903	47	25	7	15
Lorenz	364	182	—	—
Lorenz in America, collected by Ridlon	22 (26 joints)	3	16	7
Hoffa Unilateral ...	250	75	160	15
Hoffa Bilateral ...	65	20	64	36
Jackson Clarke[4] ...	46	25	14	7
This series	40	21	9	10
Total	838	351	270	90

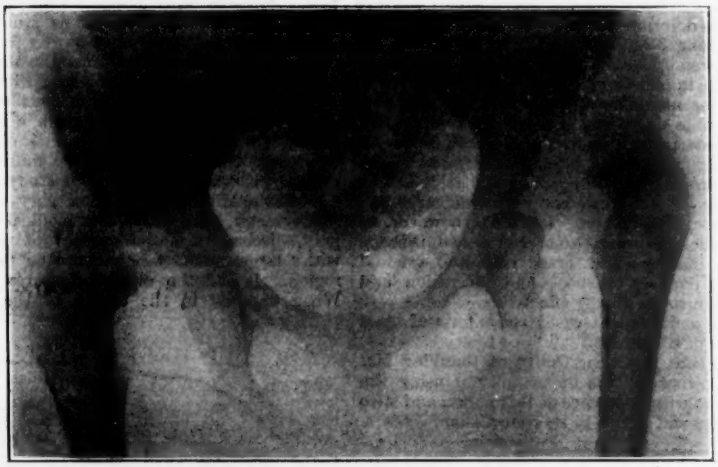
Conclusions.

1. Congenital dislocation of the hip is a condition which progressively gets worse till puberty and may cause severe deformity. In adult life further trouble may arise and completely incapacitate the patient.

2. Treatment by manipulation at the earliest possible time after infancy may be expected to yield a stable articulation with perfect function in 60–70 per cent. of cases. A slight

[4] Congenital Dislocation of Hip-joint. London, 1910.

FIG. 1.

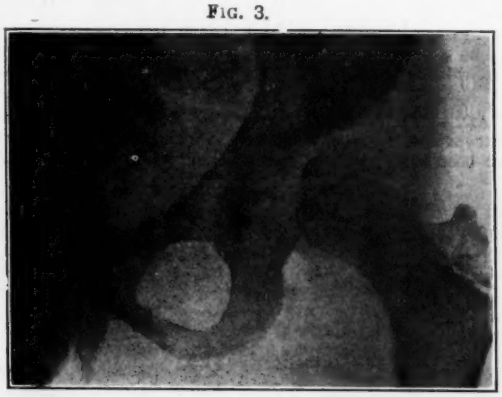


Skiagram from Case 30 showing condition before treatment.—1903.

FIG. 2.

Skiagram from Case 30 showing left hip-joint.—1909.

FIG. 3.



Skiagram from Case 30 showing right hip-joint.—1909.

FIG. 4.

Skiagram from Case 2 showing varoid reduced hip.—1909.

FIG. 5.

Skiagram from Case 26, showing a good result, but persistent dorsal position.—1909.

Notes to illustrate method of classification.—CASE 30 (Figs. 1, 2, and 3).—Girl, aged 3 years and 9 months. Double dislocation. Treatment, 903; plasters 16 months. The legs are equal in length and there is full normal movement in all directions. The child limps slightly on the left leg, walks and runs well and takes her part in games. There is no telescoping or lordosis and the case is classed as a perfect anatomical and functional cure. CASE 2 (Fig. 4).—Girl, aged 6 years. Right dislocation. Treatment 1908; plaster 8 months; calliper 8 months. There is one-quarter inch of shortening, but no wasting of the limb. There is full normal movement in every direction and the toe points forward. The child limps slightly, walks and runs as well as girls of her own age, and says she jumps better. The joint is well formed but there is definite coxa vara. Perfect anatomical and functional cure. CASE 26 (Fig. 5).—Girl, aged 4 years. Left dislocation. Treatment 1902; reduction effected by prolonged extension and abduction in a Thomas's frame; plaster 6 months. There is 1½ in. of shortening, largely compensated by scoliosis. The movements of the joint are practically perfect, but the toe points outward. The limb is an inch less in circumference than the sound side; there is no telescoping but considerable lordosis. The child limps slightly, walks and runs well, but the left leg tires more readily than the right. The head and neck of the femur are well formed; the head lies in the horizontal plane of the acetabulum but slightly behind it. Persistent dorsal dislocation with fair functional result.

limp (due to imperfect growth of the bones) and some slight limitation of movement may remain, but the children are cured of any obvious deformity or incapacity.

3. Of the remaining 35-40 per cent. the condition is usually much improved by treatment.

4. The treatment in children below 8 years of age is attended by little or no danger and by few unfavourable accidents. The trouble caused to the parents is slight and the loss of school attendance in early childhood is of but small importance.

5. In children between 9 and 12 years of age treatment by manipulation has greater dangers and inconveniences and gives much less favourable results. It should, however, be tried in all cases which have unfortunately reached this age with the condition unremedied; great care and gradual reduction avoid the dangers of shock and laceration and considerable improvement is usually effected.

6. In unsuccessful and relapsed cases some form of open operation may prove of advantage.

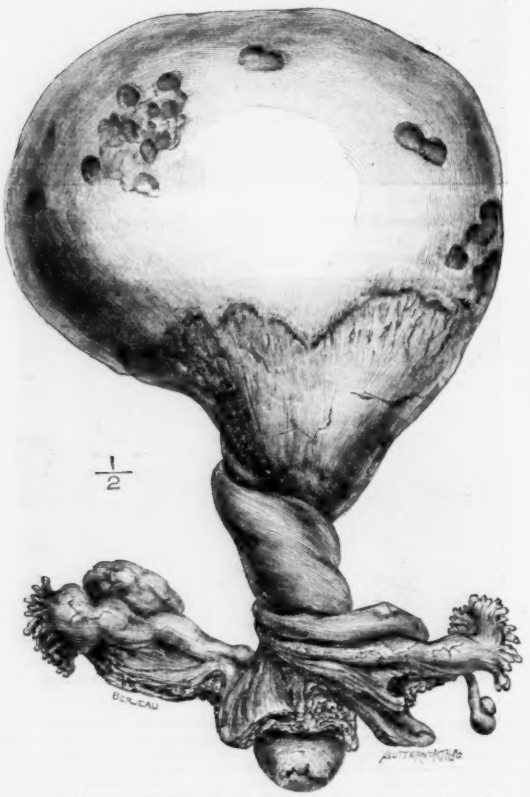
Finally, I wish to take this opportunity of thanking Mr. Robert Jones for allowing me the opportunity of using the material of his clinic for the purposes of this paper, and also for his kind assistance and advice in its compilation.

ON A CASE OF AXIAL ROTATION OF A FIBROID IN WHICH THE UTERUS WAS INVOLVED IN THE TWIST.

BY JOHN BLAND-SUTTON, F.R.C.S. ENG.,
SURGEON TO THE MIDDLESEX HOSPITAL.

ALTHOUGH it is well known that any abdominal viscus (except the liver) may undergo axial rotation, this accident has been chiefly studied in connexion with ovarian tumours.

FIG. 1.



A subserous fibroid which had undergone axial rotation and involved the uterus in the twist.

The symptoms produced by this abnormal movement are often so clear and pronounced that the condition is occasionally diagnosed with absolute certainty. Uterine fibroids are liable to rotate, but few cases have been recorded, and very few specimens with twisted stalks have been preserved. Such an accident to a fibroid is probably rare because the conditions most favourable to its occurrence—namely, a tumour of moderate size attached to the uterus by a long and slender pedicle—are uncommon. Fibroids, however, sometimes rotate when their connexions with the uterus would seem absolutely to preclude such a movement, as when a fibroid is sessile on the uterus; in such a circumstance the uterus becomes the pedicle and undergoes torsion. I have recently had an opportunity of studying a specimen of this kind at the Middlesex Hospital.

A spinster, aged 67, sought medical advice on account of pain, discomfort, and frequency of micturition, associated with a large tumour which could be felt in the hypogastric region. It had the clinical features of a uterine fibroid. When exposed in the course of the operation performed

FIG. 2.

The fibroid shown in section with the parts untwisted.

for its removal, the tumour proved to be as big as the head of a new-born child. The anterior surface of the fibroid was pearly white in consequence of a deposit of fibrous tissue, probably produced by the friction of the tumour against the abdominal wall. On withdrawing the tumour from the belly the pedicle was found to be twisted like a rope; on untwisting it the ovaries, Fallopian tubes, and uterus were recognised. Subtotal hysterectomy was performed, and after removing the parts I re-torsioned the pedicle to the same degree as before removal. The specimen was fixed to a flat cork and hardened in a solution of formalin for preservation. The fibroid had undergone degenerative changes coincident with age, I think, and in no way a consequence of the torsion of the pedicle. The thickness of the tissue forming the "milk white patch" on the surface of the fibroid proves it to be an old tumour.

The specimen with the pedicle twisted is preserved in the Museum of the Royal College of Surgeons of England. In the drawings the parts are represented twisted and untwisted. It is conceivable that the involvement of the uterus was due to, if, indeed, the whole movement was not facilitated by, its atrophic condition, and it is probable that the paucity of the

symptoms depended on the senile condition of the uterus. I know that torsion of the pedicle of a stalked fibroid will lead to very acute symptoms, for I exhibited and described such a specimen[1] (which is also preserved in the Museum of the Royal College of Surgeons of England) in which they were as severe as any I have noticed in association with ovarian cysts and tumours, and in spite of the fact that the fibroid was partially calcified.

Cases have been reported in which an ovarian cyst with a short broad pedicle has rotated and involved the uterus in the twist. In such a case the conditions would be almost parallel to those prevailing in the patient the subject of this communication. All in all, I am sure that the axial rotation of a uterine fibroid above the size of a walnut is a rare accident.

Brook-street, W.

ACUTE RHEUMATISM AMONG CHILDREN:

AN INQUIRY INTO THE PREVALENCE OF ACUTE RHEUMATISM AND ITS CONSEQUENCES AMONG CHILDREN OF SCHOOL AGE.

BY FREDERICK LANGMEAD, M.D. LOND., M.R.C.P. LOND.,

ASSISTANT PHYSICIAN, ROYAL FREE AND SEAMEN'S HOSPITALS; AND PHYSICIAN TO OUT-PATIENTS, PADDINGTON GREEN CHILDREN'S HOSPITAL.

IT is uttering a platitude to say that acute rheumatism is one of the commonest diseases of children which the medical man is called upon to treat. Yet the incidence among the community at large of a particular affection is often erroneously estimated by those who see only sick patients in hospital or elsewhere. The proportion of rheumatic children attending hospital to those suffering from other diseases is, without doubt, an index of the gravity of the infection, but it gives no guide to the amount of detectable rheumatism, or to the frequency of defects consequent on rheumatism, which may be present in those considered at the time to be in good health. A good example of the discrepancy between conclusions based on hospital figures and those obtained by the examination of school children is found in the case of tuberculosis, for this disease, though very prevalent among hospital children, is rarely detected in the examination of children at school; so rarely, indeed, that out of 1670 unselected school children examined by Dr. J. E. Squire and Dr. Annie Gowdey only 4·4 per 1000 were found to be definitely tuberculous. Remembering this and similar discrepancies, I have endeavoured to temper my views gleaned from hospital experience by an inquiry into the amount of detectable rheumatism among children attending the ordinary elementary schools of the London County Council.

Altogether 2556 children have been examined in four schools. These were in no sense selected. In three of the schools every child was examined; in the other, children who had arrived at certain periods of their school life were examined in accordance with the requirements of the education service. Of the total 2556, 844 were boys and 838 girls in the senior departments—i.e., from 6½ to 14 years old; and 874 were attending the infants' department, and consisted of nearly equal numbers of boys and girls from 3 to 6½ years old.

Method of procedure.—Each child was stripped to the waist, and the heart was carefully examined by the usual methods, any deviation from the normal either in size or action being noted. Other evidences of rheumatism were looked for. The size of the tonsils was recorded in figures, +1 implying slight enlargement, +2 considerable enlargement, and +3 very great enlargement. If adenoids were present in the absence of enlarged tonsils and were sufficient to cause signs of obstructed breathing, this observation was also noted down. An inquiry was made of the child, and of the mother when she was in attendance, for previous rheumatic manifestations in the child or for rheumatism in the family. When from the examination it seemed probable that the child was the subject of rheumatism, if the mother was not present, a nurse afterwards called at the home to make the same inquiries. This article is based on the data so obtained.

[1] Transactions of the Obstetrical Society, 1904, vol. xlvi., p. 149.

Number of Definitely Rheumatic Children.

Fifty-nine boys and 74 girls could be classified as definitely rheumatic, a total of 133. This is equivalent to a percentage incidence of 5·20 for children of all ages attending school, or of 6·83 for children in the senior departments only, those attending the infants' department being excluded from the estimation. The number affected at the different ages, and the percentage of rheumatic children at each age, are best shown in the accompanying table:—

Age in years.	3	4	5	6	7	8	9	10	11	12	13	14
Number of rheumatic children	1	1	4	9	16	11	11	21	13	23	22	1
Number of children examined	54	164	290	297	281	231	241	217	247	222	246	29
Percentage of rheumatic children	*	0·60	1·37	3·03	5·68	4·76	4·56	9·67	5·26	10·60	8·94	*

* The number of children at the ages of 3 and 14 was too small to work out a percentage incidence of rheumatism which would be even approximately correct.

In the majority of cases attention was drawn to the rheumatic child by the condition of the heart—sometimes by definite valvular disease, at others by dilatation accompanied by such alteration in sounds and rhythm as one is accustomed to hear in rheumatic children. I need scarcely say that dilatation, weak cardiac sounds, or arrhythmia, by themselves were not accepted as sufficient evidence of active or past rheumatism; but children showing such manifestations were only accounted rheumatic if there was strong enough collateral evidence to remove all reasonable doubt. For example, a little boy aged 7½ years was found to have a deep cardiac dulness reaching nearly 2 inches outside the left nipple line, and weak cardiac sounds unaccompanied by a bruit; he was only considered rheumatic because it was elicited that he had been subject to growing pains, his brother had had rheumatic fever twice, chorea, and tonsillitis, and his mother chorea. Another patient, a girl aged 9½ years, who had fainted frequently and whose heart missed one beat in about every four, was included among the rheumatic cases, because she had had frequent tonsillitis and both her mother and brother had had rheumatic fever.

By requiring such definite evidence as this it is clear that one is likely to include too few rather than too many cases. Again, there are some rheumatic manifestations which, although very common, cannot be ascribed with certainty to rheumatism, in the absence of other data. Anæmia, for example, although an important and common consequence of rheumatism, and probably often occurring alone as the result of that disease, would not under those circumstances be recognised as rheumatic in origin. The same may be said of tonsillitis. Growing pains also, although undoubtedly rheumatic, make so little impression on the parents and are so readily forgotten or confused with the vague pains which herald or follow other acute febrile disturbances, that a history of their occurrence cannot be accepted as adequate evidence of rheumatism. Yet it is probable that growing pains not infrequently form the only manifestation of rheumatism in childhood. For these reasons it is almost certain that the percentage I have given above is well within the mark.

The table shows, broadly speaking, that more and more children become rheumatic as they grow older. There is, however, an apparent accession of rheumatism at the age of 10 which is not shown in the figures in subsequent years. I can give no explanation for this, and regard it as an inaccuracy which would have disappeared if a large enough number of children had been examined.

Incidence of Rheumatic Heart Affections.

I found that out of 133 children whom I had been able to classify as rheumatic, all except 18 showed some evidence of cardiac disorder at the time of examination. Thus rheumatic heart affection occurred in 4·49 per cent. of the children of all ages attending school, or in 5·94 per cent. of those in the senior departments only. Obvious valvular disease was found in 2·93 per cent. of children at all ages, or 3·92 per cent. of those in the senior departments.

An analysis of the 115 cases of heart affection showed that they were constituted as follows:—

Mitral regurgitation	44
Mitral stenosis	15
Double mitral disease	9
Probably double mitral disease, but one lesion doubtful	6
Aortic regurgitation and mitral stenosis	1
Dilatation with a systolic bruit at the apex, possibly mitral regurgitation	12
Dilatation with a short presystolic rumble, or so-called reduplicated second sound (mid-diastolic bruit), possibly early mitral stenosis	8
Dilatation without bruits	20

The comparative rarity of aortic regurgitation in children is emphasised by the fact that only one case was discovered among the 2556 children examined.

It will be observed that I have hesitated to group those children whose hearts were dilated and in whom only slight bruits—systolic, presystolic, or mid-diastolic—were heard. Each of these murmurs may be so transitory in rheumatic children that it is often quite impossible to say which are endocardial and which myocardial in origin. Moreover, it is a moot point how often early valvular disease is recovered from, and the discovery in rheumatic children of a murmur which afterwards goes does not necessarily mean that it was due to dilatation merely. Time may prove that a very slight systolic bruit at the apex in a child apparently in good health was a sign of the beginning of a slowly acquired mitral regurgitation; whilst a distinct presystolic bruit which used to be considered definite evidence of mitral stenosis may completely disappear, but whether it was produced by a temporary partial occlusion of the mitral orifice or was myocardial is debateable.

It has more and more been borne in upon me during the collection of these data, how frequently what appears to be a case of simple dilatation or cardiac weakness proves on investigation to be rheumatic. In fact, nearly every child with a dilated or weakly acting heart who was able to attend school, unless the condition was merely transitory, was a rheumatic subject.

Other Rheumatic Manifestations.

Chorea did not appear among the children or in the histories of their previous illnesses as often as might have been expected. There were 18 cases only, which amounted to 0·70 per cent. of the children of all school ages or 1·06 per cent. of the children in the senior departments. The comparative incidence in boys and girls followed the usual rule, there being twice as many girls affected as boys. Thus 0·71 per cent. of the boys were at some time choreic, and 1·43 per cent. of the girls.

Relative Frequency of Rheumatic Manifestations.—The relative frequency of such rheumatic manifestations as could be investigated appeared to be as follows:—

Manifestation.	Number of cases.	Percentage of children.	Percentage of rheumatic cases.
Polysynovitis	42	1·64	31·57
Heart affections	115	4·51	86·46
Growing pains	35	1·37	26·31
Tonsillitis	32	1·25	24·06
Chorea	18	0·70	13·54

No reliable data were obtained in 10 cases.

As has been stated above, the percentage of the fleeting and consequently easily forgotten forms of rheumatism is probably far below the true average, whilst no data of value could be obtained of certain rheumatic manifestations like anæmia.

Enlarged tonsils and adenoids.—The relation of enlarged tonsils and adenoid vegetations to rheumatism in childhood is well illustrated by the figures obtained. Taking the 133 rheumatic cases, in 75 there were no signs of abnormality in the throat, in 21 the tonsils were slightly enlarged, in 11 considerably enlarged, in 16 greatly enlarged, and in 3 tonsillotomy had been performed before the patients were examined. Adenoids were responsible for producing signs of post-nasal obstruction and mouth-breathing in 7. In other words, there was an abnormality of the tonsils or pharyngeal mucosa or both in 58 cases, or in 43·6 per cent. of the rheumatic cases. This was sufficient to warrant operative interference in 37 cases, or 27·8 per cent. of the rheumatic cases.

It is interesting to compare these figures with those indicating the average frequency of tonsils and adenoids in school children generally. According to Macleod Yearsley, 7 per cent. of all school children require operation for this condition, whilst the medical officer of the Board of Education, from the results of the examination of 5,000,000 children, found that the percentage came out at 8. Therefore the incidence of tonsils and adenoids large enough to require operation is nearly four times as great in rheumatic children as in school children generally. Whether the abnormal tonsils permit the ingress of the rheumatic micro-organism, or whether they are the result of rheumatic tonsillitis, is a question which cannot be answered at present.

Remarks.

From this inquiry it is clear that there is a large amount of disregarded rheumatism among the children of school age in London. With the knowledge that about 1 in every 15 children from the age of 7 onwards attending the elementary schools is rheumatic, and that about 87 per cent. of these have some consequent affection of the heart, we may well consider what may be done to remedy this serious condition of affairs.

It must be remembered that nearly all the cases recorded in this article were of children who were considered to be in ordinary health, those ill enough to be removed from school or sent to a physically defective centre not being included. In very few instances did the parents or teachers know that the child was rheumatic or that the heart was affected, and no sort of precaution was being taken either to safeguard the heart or to prevent a recurrence of attacks.

The rheumatic children of the poor cannot get adequate treatment at present. For them, during the active stage of the disease, complete rest is essential, extending over a much longer period than they can be allowed to stay in hospital. They are not suitable for convalescent home treatment, since if once out of bed they are usually just as well at home. The result is that many of these children are discharged, with the disease no longer acute yet still smouldering on, to leave behind ultimately a damaged and crippled heart with all its attendant consequences. In many other instances the disease is so insidious in its onset and undemonstrative in its progress that the children do not obtain medical advice or treatment until permanent injury has been effected.

The routine medical examination of school children will enable the school medical officer to bring these rheumatic children to the notice of their parents and teachers, and so help to obtain for them, when necessary, such remedial treatment as is possible. When, moreover, the time for curative treatment has passed we may so influence their school life and choice of occupation on leaving school as to make the defect of as little moment as possible to its possessor.

Queen Anne-street, W.

ACUTE ENDOCARDITIS CAUSED BY A MICRO-ORGANISM HITHERTO UNDESCRIBED.

BY A. T. NANKIVELL, M.D., B.S. LOND., L.R.C.P. LOND., M.R.C.S. ENG., D.P.H. CAMB.,

ASSISTANT MEDICAL OFFICER, CROYDON BOROUGH HOSPITAL; AND DEMONSTRATOR IN PUBLIC HEALTH LABORATORIES, KING'S COLLEGE, UNIVERSITY OF LONDON.

A LITTLE girl, 3½ years old, was admitted to the Croydon Borough Hospital on Feb. 1st of this year. She was suffering from a mild attack of scarlet fever without severe throat symptoms. Her illness ran a normal course towards convalescence. But three weeks after admission she began to have rises of temperature in the evenings. At first the heart sounds were natural; later she developed a slight but definite double mitral murmur; the heart was appreciably enlarged. During the first week in March the temperature oscillated between 99° and 101° F. There was no splenic enlargement nor any sign of infarction elsewhere; the patient had no joint pains, nor were there any rheumatic

nodules present. The temperature chart was typical of an acute endocarditis. On March 7th I performed a venipuncture into the left median basilic vein, and obtained 5 c.c. of blood. The blood was inoculated into two broth tubes, and from one of these the diplococcus of which I shall speak presently was obtained. The after-history of the patient requires little comment; gradually the temperature subsided, and a fortnight later it had regained the normal level. The heart sounds remained unaltered, and there were none of the later lesions associated sometimes with endocarditis. The patient was removed from the hospital by her relations on March 25th.

The diplococcus which I obtained from the patient's blood stream showed no evidence of having a capsule. In shape each coccus was round, the size being about 0·7μ by 0·7μ. There was no tendency to chain formation, either in broth or on solid media. The organism showed no evidence of a hilum. It was non-motile. It had neither spores nor flagella. Its thermal death-point was 58° C. This diplococcus does not retain the stain by Gram's method—it is Gram-negative. It stains well with dilute carbol-fuchsin and eosin, less brilliantly with the blue dyes. It is not acid-fast.

On nutrient agar the diplococcus grows well at 37° C. and fairly well at 20-22° C. At 42° C. on agar the growth is only slight. The growth on agar has a ground-glass appearance, with small translucent separate colonies at the edges of the streak. The organism does not readily die, and will survive on agar for at least 12 weeks without subculturing. The diplococcus will grow both anaerobically and aerobically. It liquefies gelatin. It grows well in broth and peptone water, forming a precipitate; in peptone water it produces indol at the end of a week's growth. On Conradi-Drigalski medium and on Rebipelagar the diplococcus grows feebly, forming white, pin-point, translucent colonies. Litmus milk is clotted and turned acid by the diplococcus in 48 hours; the clot is firm and not honey-combed, and the supernatant whey is clear. The organism ferments glucose, with the production of acid, but no gas. Lactose, sucrose, maltose, galactose, raffinose, arabinose, mannite, dulcite, inulin, salicin, and dextrin are not affected. The diplococcus is not hæmolytic. The acidity and alkalinity of the culture media do not influence greatly the growth of this micro-organism. It grows well on agar between + 45 and − 60 (Eyre's scale). Outside these extremes the growth is more feeble. The organism is inhibited by 1 in 40,000 malachite green.

This diplococcus does not seem to be very pathogenic. The little girl from whose blood it was obtained was at no time very ill, nor did it produce any ill-effects when injected into guinea-pigs. I have to thank Professor R. T. Hewlett, who conducted the inoculation experiments for me.

At the time of the discovery of the diplococcus I had some thought that it might be the causative organism of scarlet fever, but I may say at once that this is, in all probability, not the case. I undertook a long series of agglutination and complement fixation reactions, using this organism with the blood from many scarlet fever patients, but in all these tests the results were negative. The micro-organism grows fairly well on agar to which has been added 1 in 4000 methylene blue, a medium which inhibits most other cocci. I plated many throat swabs from scarlet fever patients on to this medium, but never once succeeded in isolating this diplococcus from such cases.

Diplococci have been obtained from the blood and joints of patients suffering from rheumatic fever and acute endocarditis by Poynton and Paine,[1] Ainley Walker,[2] Triboulet,[3] Beattie,[4] and Wassermann.[5] Most of the diplococci described by these writers seem to have been Gram-positive, and differed in other ways from the organism I have isolated. W. v. Lingelsheim,[6] in a long paper, describes many varieties of rare Gram-negative diplococci; but no one of these appears to agree in all respects with the diplococcus which is the subject of this article.

My thanks are due to Mr. G. N. A. Hall, who has kindly examined many of the properties of this diplococcus, and helped to verify my observations on it.

[1] Poynton and Paine: THE LANCET, 1900, vol. ii., pp. 861, 932.
[2] Ainley Walker: Practitioner, 1903, vol. lxx., p. 185.
[3] Triboulet: Comptes Rendus de la Société de Biologie, 1897, p. 1000.
[4] Beattie: Journal of Pathology and Bacteriology, vol. ix., p. 272.
[5] Wassermann: Berliner Klinische Wochenschrift, 1899, p. 736.
[6] W. v. Lingelsheim: Klinisches Jahrbuch, 1906, vol. xv., p. 373.

SPINAL ANÆSTHESIA IN EGYPT.

BY H. E. S. STIVEN, M.A., M.B., B.C. CANTAB.,
REGISTRAR, KASR-EL-AINI HOSPITAL, CAIRO.

SOME extracts from the Kasr-el-Aïni Hospital Report for the year 1910 may be of interest to surgeons and anæsthetists. This hospital is a Government native hospital of about 500 beds. Here is also the Egyptian School of Medicine. The number of in-patients treated in 1910 was 8725. The total number of operations performed was 3205.

The most notable feature with regard to operations in 1910 is the great advance which stovaine has made as a routine anæsthetic. In the general theatres the operations under stovaine exceed those under general anæsthesia. The figures are: stovaine, 662; general, 599. No untoward results are recorded, and the chief danger seems to be a lowering of the general blood pressure during the operation. In the majority of cases this can be remedied by the administration of adrenalin. Stovaine did not produce its customary effect in at least 16 cases, which, therefore, had to be done under a general anæsthetic. Operations were finished off under chloroform in at least four cases. A successful administration of "high stovaine" was accomplished in 17 cases.

In the gynæcological theatre only 19 cases were given a general anæsthetic out of a total of 201 patients operated upon. Details were carefully kept in this theatre, and 175 cases were successfully operated on under stovaine. In 8 cases a general anæsthetic had to be administered after the injection of stovaine, either because of the insufficient anæsthesia produced or to check vomiting when the peritoneum was pulled upon. Eleven cases had a general anæsthetic from the commencement. Seven cases, which I have not counted as having a general anæsthetic, required a little chloroform towards the end of the operation, as the effect of the stovaine was beginning to wear off. The longest time a patient was under stovaine in this theatre without any chloroform being necessary was two hours and a quarter: this was a patient with malignant disease on whom a Wertheim's operation was being performed: stovaine (0·08 gm.) was given at the commencement and repeated half-way through the operation. The average length of time the anæsthesia lasts is about one hour and a quarter, but patients vary considerably.

The total statistics for anæsthetics in all the operating theatres shows: general anæsthetics, 1604; stovaine, 867; local anæsthetics, 633; somnoform, 126. The large majority of general anæsthetics is accounted for by the fact that 384 eye operations and 502 operations in the Cushaks (the minor operating theatres attached to the wards) were done under general anæsthesia.

I understand that two members of our staff are compiling a paper giving their detailed observations and conclusions. We look forward with interest to its publication.

I have to thank Dr. H. P. Keatinge, the director of the Hospital and Medical School, for his permission to publish these notes.

PRESENTATIONS TO MEDICAL PRACTITIONERS.—At Port Isaac (Cornwall) on Sept. 30th, Mr. Richard Julyan George, M.D., C.M. Edin., D.P.H. Irel., was presented with a silver table centrepiece and vases, together with an album containing the names of the subscribers, which numbered over 300, on the occasion of his leaving Port Isaac after practising for over 20 years in the district.—At Clovelly (Devon) on Sept. 30th, the members of the Clovelly Mariners' Union Society presented Mr. Robert Walker, F.R.C.S. Edin., L.R.C.P. Edin., with a substantial cheque on the occasion of his retiring from active work and leaving Clovelly. The members of the Rechabite Friendly Society gave Mrs. Walker a handsome dressing-case.—At the Parish Room, Wotton-under-Edge, Gloucestershire, on Sept. 26th, Mr. James George Boyce, L.R.C.P. & S. Irel., was presented with a cheque for £32, and an illuminated album containing the names of 170 subscribers, on the occasion of his leaving the town, after 20 years' residence, for British Columbia. Mrs. Boyce was presented with a handsome box of gloves.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTES ON A CASE OF ACUTE GLAUCOMA SUCCESSFULLY TREATED BY THE OPERATION OF TREPHINING THE SCLERA.

BY SYDNEY STEPHENSON, D.O. OXON.,
OPHTHALMIC SURGEON, QUEEN'S HOSPITAL FOR CHILDREN, ETC.

THE suggestion of employing a small trephine to drill a hole in the coats of the eyeball in cases of glaucoma is by no means new, although it has never been widely adopted. Dr. Argyll Robertson[1] 35 years ago recommended such an operation when iridectomy could not be performed or when it had failed; and much more recently the operation has been advocated by Blanco,[2] Fröhlich,[3] Freeland Fergus,[4] and R. H. Elliot.[5] Major R. H. Elliot's suggestion was that after a flap of conjunctiva had been reflected from the neighbourhood of the limbus, a hole should be made with a small trephine through the sclera into the anterior chamber. The operation might or might not be combined with a small peripheral iridectomy. The underlying idea was that by these means a permanent filtering cicatrix might be established between the anterior chamber, on the one hand, and the subconjunctival space, on the other.

In the following case of acute glaucoma, referred to me by Dr. S. H. Craig, the Fergus-Elliot operation had a happy result.

The patient, aged 67 years, was first seen by me on Nov. 30th, 1909. The history was to the effect that on the night of Oct. 22nd-23rd she was seized by "biliousness," characterised by vomiting, severe headache, and by some, but not by much, pain in the eyes. On the fourth day of the illness (Oct. 26th) the sight was found to have failed seriously in both eyes. The patient was seen by Dr. Craig on the following day. Recognising the glaucomatous nature of the attack he prescribed physostigmine, which had been applied to the eyes ever since. As a child the patient's left eye had squinted, and the sight of that eye had always been defective as compared with its fellow.

When I saw the patient on Nov. 30th she looked ill, and her face bore traces of considerable suffering. The sight of the right eye, which was as hard as a stone, was reduced to perception of light. The pupil was widely dilated and motionless. The eyeball was congested in a dusky sort of way. No view of the fundus could be obtained. The eye was convergent. As regards the left eye, sight was equal to 5/60. The pupil was semi-dilated and motionless. Tension was plus 2. There was no definite redness of the eyeball. The disc was cupped, but not in a glaucomatous sense. Physostigmine, applied freely to both eyes, reduced the tension of the left eye perceptibly.

On Dec. 1st, under the influence of ether followed by chloroform, given by Dr. Craig, Elliot's operation was performed upon each eye, the upper margin of the sclero-corneal junction being selected for the trephine hole, made by means of a Bowman's corneal trephine 2 mm. in diameter. As regards the right eye, the iris presented in the hole and a piece was therefore excised. No iris was removed from the left eye. The conjunctival flaps were retained in place by sutures, physostigmine was instilled, and both eyes were bandaged. The eyes were dressed on Dec. 4th, but nothing was dropped into them. Later in the day the patient developed delusions, believing that the nurses were going to give her chloroform, and so forth. On Dec. 7th there was no pain, the eyes showed little reaction, and tension was normal. As the delusions still continued the patient was got out of bed and a double shade was substituted for the binocular bandage. These steps had the happiest result, for on the following day she was almost herself again. From this time the progress of the case was uneventful.

The patient was last seen on Jan. 20th, 1910—that is, 50 days after the operation—when her condition was as follows. Right eye: Vision 6/9 and No. 6 Jaeger. With presbyopia corrected with a + 4 D. spherical lens she read words in No. 2 Jaeger. The eye was white, except where the conjunctival flap was raised. A bleb-like filtering cicatrix lay above the cornea. The pupil was oval, with the small end upwards. The edge of the iris was free from adhesions. A small coloboma, the result of the iridectomy, could be made out above the normal pupil. Left eye: Vision 6/24 and No. 6 Jaeger. With presbyopia corrected with a + 4 D. spherical lens she read No. 4 Jaeger. The eye was white except as regards the place where the flap of conjunctiva was resected. A tiny prolapse of the iris was to be made out at the outer end of the wound. Tension was normal in both eyes. The fundus of each eye could be plainly seen. The optic discs were deeply cupped, but only partially so. The left eye was slightly convergent, with some tendency to an upward deviation.

Welbeck-street, W.

[1] Argyll Robertson: Royal London Ophthalmic Hospital Reports, May, 1876.
[2] Blanco: Klinische Monatsblätter für Augenheilkunde, xli., Band ii., p. 150, 1903.
[3] Fröhlich: Ibid., May, 1904.
[4] Freeland Fergus: Brit. Med. Jour., Oct. 2nd, 1909, and The Ophthalmoscope, February, 1910.
[5] R. H. Elliot: The Ophthalmoscope, December, 1909.

NOTES ON A CASE OF INTRA-UTERINE HÆMORRHAGE WITH A NERVOUS ORIGIN.

BY D. FENTON, M.B., CH.B. EDIN., D.P.H.

THE patient, a young married woman aged 26 years, was attended by me in her first confinement. On making a vaginal examination, when called to the case about 2 A.M., I found the os sufficiently dilated to admit two fingers. I waited an hour to ascertain whether it would be worth while going home again, and on my second examination concluded, in consequence of the rapid progress of the case, that it would be highly unsafe for the patient to be left. A fine healthy male child was born about 4 A.M. without the aid of any anæsthetic or instrumental interference, but there was a small rupture of the perineum. The placenta was delivered spontaneously about ten minutes after the birth of the child, and the perineum was then repaired.

The puerperium was normal in every respect up to the end of the second week. On the morning of the fifteenth day I received an urgent summons to the patient as she was "very bad." At the time of my visit I found her blanched, with a pulse-rate of 96, normal temperature, and absolute freedom from pain. The patient's mother informed me that her daughter had had a severe flooding which had come on, without the slightest warning, that morning. Although I had examined the placenta and had satisfied myself that nothing had been left in the uterus at the time of the confinement, I carefully examined the blood clots to ascertain if by any chance there had been a succenturiate placenta, and if an "island" of placenta which had been inadvertently left behind had come away, but my examination was negative. I then examined the patient carefully for any evident cause of the hæmorrhage, but this examination also was negative.

It struck me that the hæmorrhage was of nervous origin, and, on inquiry, I learned that the previous evening the patient's brother-in-law had gone to the house in a state of intoxication, had made himself a general nuisance, and had, in consequence, very much upset her. During the night the patient, who is inclined to be somewhat superstitious, was awakened by the barking of the house-dog, and this was construed by her into a "death-warning," and she concluded that either she herself or some of her near relatives were approaching dissolution. The result was that she passed the rest of the night in a state of restless wakefulness, tossing about in the bed. I gave a favourable prognosis, ordered light diet, and prescribed a sedative mixture, with eminently satisfactory results.

It is generally admitted that diarrhœa and polyuria may be caused by nervous excitement, and Dr. G. A. Sutherland, speaking of gastrostaxis, says: "Sometimes an attack is traced to hard work, or worry, or anxiety," obviously suggesting a nervous element. Therefore I see no reason why an intra-uterine hæmorrhage, probably from the placental site, in a woman recently confined, may not also be of nervous origin, and to my mind the above case seems to bear out this contention.

Blackburn.

Medical Societies.

ROYAL SOCIETY OF MEDICINE.

CLINICAL SECTION.

Exhibition of Cases.

A MEETING of this section was held on Oct. 13th, with Sir ALFRED PEARCE GOULD in the chair.

Sir FREDERIC EVE showed a case of Myeloid Sarcoma of the Tibia in a girl aged 18, who was admitted to hospital with a large endosteal sarcoma of the head of the left tibia of six months' duration. After the diagnosis of myeloid sarcoma had been confirmed at operation, the upper third of the tibia containing the tumour was resected and the articular cartilage of the femur was removed. The fibula was exposed and about 6 inches of it were sawn off, the periosteum being carefully preserved. A hole was bored in a vertical direction in the ends of the femur and tibia respectively, and into these holes the portion of fibula was bolted in such a manner that the ends of the two bones were separated about 1¼ in., the limb being correspondingly lengthened. Primary union took place and the junction between the bones had gradually become firmer. Radiographs taken from time to time showed that the transplanted fibula had increased in circumference by new formation of subperiosteal bone, and the interval between the femur and tibia had become narrower owing to growth of bone from their periosteum and cut surfaces. Recently some interesting observations had been made by Axhausen and Lobenhoffer on the changes which take place after implantation of living bone. They showed that when bone covered with periosteum was transplanted the bone substance itself died and only the periosteum and endosteum lived. The new bone formation proceeded, therefore, mainly from the periosteum, and ultimately led to the reparation of the entire bone. In transplantation operations the periosteum must be preserved if the growth and permanent fixation of the graft were required. It was well established that myeloid sarcomata did not recur after local removal. Sir Frederic Eve had that week seen two of his cases illustrating this point. One a man, aged 35, had a large myeloid sarcoma of the fibula. It had broken through its capsule, and the microscope showed an infiltration of myeloid and round cells in the muscles surrounding the growth. The upper half of the fibula was removed with the adjoining tissues. Eight years subsequently there was no recurrence. In the second case a myeloid sarcoma of the size of a tennis ball was removed by scraping from the head of the tibia of a man, aged 22. Four and half years later the limb remained healthy. In erasing these tumours the hæmorrhage was very free and had to be guarded against by applying a tourniquet.

Dr. JAMES GALLOWAY showed a case of Severe Facial Neuralgia Associated with Myoma Cutis, and the advisability of injecting alcohol into the main branches of the left fifth nerve was discussed.

Dr. WILFRED HARRIS showed a case of Acute Encephalitis in a girl aged 13, who on May 21st was seized with a shivering attack, followed by severe headache and vomiting, with pyrexia. She became delirious and unconscious on the following evening, and did not speak again for 13 weeks. She was at first considered to be suffering from "heat apoplexy." Her recent condition pointed to the cerebellum as being particularly involved, but the past history of the case indicated a much wider area of cerebral inflammation, though the pyramidal system seem to have escaped.

Dr. H. D. ROLLESTON and Mr. W. P. TINDAL-ATKINSON showed a case of Spondylose Rhizomélique in a man aged 49. Fourteen years ago pain and restriction of movement began in his hips; pain in the spine began 11 years ago. The disease had progressed until the spine had become immoveably fixed five years ago; since then he had been subject to sudden attacks of pain beginning in the heels, extending to the neck and head, and making his bed feel like a "bag of spikes." All the bones were unduly translucent, probably from disuse.

Mr. R. C. ELMSLIE showed a case of General Thyroid Malignancy in a woman aged 61. In April, 1911, she began to feel pain in the right wrist, which was treated as rheumatism until July 1st, when a swelling appeared. At that time there were pain and swelling on the radial side of the right forearm, a short distance above the wrist. All the movements of the wrist, as well as pronation and supination, were limited. A skiagram showed an endosteal swelling of the lower part of the shaft of the radius. The swelling was thought to be a sarcoma, and in July a portion of the affected part of the radius was excised. Microscopic examination of the growth showed that it consisted of thyroid tissue, not evidently carcinomatous, but resembling rather an adenoma mostly of the fœtal type of thyroid, but some of the alveoli contained colloid. In September the patient had a severe attack of dyspnœa lasting several days and resembling severe asthma; this, she stated, had been a frequent occurrence with her in the autumn and winter. On that occasion, however, although she had improved, the dyspnœa, stridor, and hoarseness persisted. The thyroid enlargement had increased a little in the last two months, and the veins of the root of the neck on the left side had become distended. The movements of the vocal cords were at present natural.

Cases were also shown by Mr. P. LOCKHART MUMMERY, Mr. C. WARD, Dr. H. BATTY SHAW, Mr. P. S. MARTIN, and Mr. H. MORRISTON DAVIES.

The meeting concluded with a paper on an Epidemic of Acute Anterior Poliomyelitis in Cornwall, by Dr. A. GREGOR and Mr. L. B. HOPPER.

UNITED SERVICES MEDICAL SOCIETY.—A meeting of this society was held on Oct. 11th, at the Royal Army Medical College, the President, Major E. B. Waggett, R.A.M.C. (T.), being in the chair.—The President, in his opening address, said that the election of a Territorial officer to the presidency of the society was in part due to the desire felt by the council and members to emphasise the fact that the society was intended for the benefit of all the medical services, and was not confined to the Royal Army Medical Corps, an erroneous impression due to the fact that the meetings were held in the Royal Army Medical College. He hoped that his brother territorial officers and those *à la suite* officers who only undertook to do military work in time of war, would accept the fraternal offer held out to them by their brethren in the regular services of the army and navy, and would join the society in greater numbers than they had done hitherto. They would have the very great advantage of hearing military medical matters discussed by those who had had practical experience of such things in war and in peace. An instance of the necessity for such discussion occurred in the paper which was to be read that evening, and which, if he was not mistaken, would show that the recent alterations in the shape of the bullets used by the principal Powers were destined to modify very considerably the conceptions of military surgery which were formed from experiences in South Africa. —Major E. M. Pilcher, D.S.O., R.A.M.C., read a paper on "The New Bullets." He pointed out that all the alterations in the form of the bullet from the time of the old round bullet were primarily made with the object of getting better ballistic properties. Secondary aims were reduction in weight of ammunition, lessened recoil on firing, and effective wounding power. This last question had been so much put on one side that in 1892 serious complaints arose as to the inefficacy of the small-bore bullet of the time in stopping men and in putting them definitely *hors de combat*. War experience showed that the ·303 bullet gave more explosive effects when bone was touched than its predecessors, but that in soft tissues the track was usually narrow, not readily infected, and healed rapidly. Latterly many of the chief Powers had adopted bullets which agreed in being lighter and in having a sharply pointed nose. These met with less resistance when passing through air, and the following eddy was reduced. This reduction in the following eddy was accompanied by a greater tendency of the bullet to wobble, and this tendency was increased by the fact that, owing to the pointing of the nose, the centre of gravity of the bullet was thrown much further back. Experiments with bullets of this type showed that the entrance wound was always small, but that there was an explosive exit wound in 30 per cent. of cases. In two-thirds of all wounds there was evidence that the bullet had turned over in its course through the tissues. Only 17 per cent. of the wounds could be classed with the simple flesh wound typical of the ogival bullet; in the remainder the wounds were more severe, especially in the soft parts, where the track was surrounded by an area, greater or less in extent, of torn tissue. The

wounds in bone, on the other hand, were very similar to those produced by the ·303 bullet. Experiment showed that the increased severity, which was in future to be expected in wounds of the soft parts, was due chiefly to the great tendency shown by the newer patterns of bullets to turn over on meeting with any resistance. As to the degree of increased severity of the wounds, the lecturer thought that one might expect a return to the conditions present in the days of the Snider bullet, with, at short ranges, an added increase due to the much greater velocity of the new bullets. — Lieutenant-Colonel J. B. Wilson, R.A.M.C., Fleet-Surgeon W. E. Home, R.N., Major H. A. Bray, R.A.M.C., and the President took part in the discussion.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—The annual meeting of this society was held on Oct. 13th, when Professor A. Bostock Hill was formally introduced as the President for the ensuing session by the retiring President, Dr. W. G. Willoughby.—In his presidential address, which dealt with the Evolution of the Medical Officer of Health, Dr. Hill said that it was difficult to conceive a period of civilisation when there was no elementary sanitary service. Probably the earliest real sanitary work was that undertaken for the prevention of floods; and when men began to collect into communities it became necessary to arrange for the removal of waste products which hindered access to their dwellings and reduced the comfort of existence. The earliest records of a preventive service were those of Rome, where officers, termed ædiles, were appointed who were established as *curatores urbi* in 495 B.C. The medical service of Rome undoubtedly included a Poor-law service. The officers not only had to attend the poor, but they were allowed to take fees from the rich so long as the legitimate Poor-law work was not interfered with. From the point of view of civilisation and of municipal government probably no greater disaster befell the world than the fall of Rome. Then much of the carefully elaborated municipal work perished and succeeding generations had slowly to endeavour to reconstruct a system of public health administration. After referrring to spasmodic efforts to enforce sanitary measures in the City of London which were made by Edward III., Henry VIII., and Queen Elizabeth, Dr. Hill said that the nineteenth century must ever be memorable as that in which modern hygiene was born and in which the medical sanitary officer came into existence. In the first decades of the last century the most important sanitary work accomplished was the passing of the Registration Acts. This enabled the statistician for the first time to collect statistics in a scientific form on which could afterwards be based the present administrative system of public health. The Public Health Act of 1848 was the result of the report of the Royal Commission on the Health of Towns. It did not, however, provide for the appointment of medical officers of health. During the next 20 years the main work in the evolution of the medical officer of health was educational. Facts accumulated, based on statistics and the progress of medical science, and the Public Health Act of 1872 permitted the appointment of medical officers of health, while the Act of 1875 made those appointments compulsory. In the early days their chief work was the advising of the removal of those great nuisances which had been shown to be hostile to a reasonable degree of public health. In many of the minor districts the appointments were made by councils which did not understand the necessity of public health work. In a large number of instances the officers were discouraged from doing more than was absolutely necessary. One of the most important points in connexion with the work of a medical officer of health at the present day was the education of the public as to what was the meaning of modern hygiene, and this could only be done by a medical man who was a specialist, and therefore a medical officer of health.

MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.——A meeting of this society was held on Oct. 6th, Dr. A. Freeland Fergus, the President, being in the chair. Dr. Fergus opened the new session by delivering a presidential address on the Rise and Progress of the Glasgow School of Medicine: from Maister Peter Lowe to Sir William T. Gairdner. After speaking of the early workers in medicine in Glasgow he pointed out that many men of the first rank in medical science, who had attained their distinction for the most part in the south country, were connected with the west of Scotland, and he instanced as Lanarkshire men William Hunter, John Hunter, Matthew Baillie, and Smellie. He pointed out that the medical school of Glasgow in great part owed its origin to the influence and work of Cullen, who was perhaps the first to give systematic instruction in medicine in Glasgow. An interesting line of succession was pointed out in so far as Cullen taught Joseph Black, Black taught Thomas Thomson, Thomas Thomson taught Graham, afterwards master of the Mint and professor of chemistry at University College, and Graham taught Joseph Lister. All these men were connected with Glasgow, and the name of each is to be found on the list of the Royal Faculty of Physicians and Surgeons. It was during his term of office in Glasgow that Lister revolutionised surgery, and practically introduced to the world the modern biological pathology which has not only been useful in surgery, but has also markedly influenced work in the departments of public health and medicine. The Glasgow Royal Infirmary was the institution in which modern surgery was actually called into being. The influence of Sir William Tennant Gairdner, Dr. Fergus said, had been of the greatest importance. He characterised him as a man of great simplicity of character, of profound and wide scholarship. If it were important to young students to be brought into contact with a man who invariably took a philosophic view of a subject, who was profoundly learned in the matters under discussion, and who was most painstaking about the minutest details, then Gairdner was without comparison the best teacher of his time. Fortunately for the city of Glasgow, Gairdner was not only professor but was for a time also medical officer of health, being the first to hold that appointment. The Public Health Department of Glasgow was practically organised by him, and was carried on after his retirement with conspicuous ability by Dr. J. B. Russell. Amongst other Glasgow practitioners and professors the lecturer mentioned Dr. Andrew Buchanan, who was the first to give any succinct account of the phenomena of the coagulation of the blood; Allen Thomson, who was one of the earliest workers in the domain of microscopic embryology; William MacKenzie, who in his day was one of the leading ophthalmic surgeons of the world; and Robert Perry, who while a physician in the fever wards of the Glasgow Infirmary clearly differentiated between typhus and enteric fevers.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Oct. 5th, Mr. H. H. Taylor, Vice-President, being in the chair.—Mr. A. G. Bate showed a man with Severe Spasmodic Torticollis, in whom palliative measures having been tried with no success the spinal accessory nerve was resected for about an inch, but the result was almost *nil*. The posterior divisions of the upper cervical nerves were then divided, and as two years had now passed and a complete cure of the spasms had been obtained Mr. Bate thought he was justified in hoping that the result was permanent.—Mr. Bate also showed a case of Tabes with Gastric Crises of 11 Years' Standing Treated by Förster's Operation. Laminectomy of the fifth to the eighth dorsal vertebræ was first performed, the dura was opened, and the posterior divisions of the seventh to the tenth dorsal nerves were divided. Three months had now passed and the gastric crises had quite disappeared.—Dr. W. Broadbent showed a case of Hypertrophic Pulmonary Osteo-arthropathy. The man had well-marked enlargement of the lower ends of the forearms and wrists, clubbing of the fingers, swelling above and around the knee-joints, which contained fluid, and enlargement of the ankles. He had had a cough from boyhood. The sputum was fœtid. There was dulness over the lower lobe of the left lung with distinct cavernous signs. The heart was pulled over till the apex was in the left axillary line. No tubercle bacilli were found. Probably there was an old empyema which had ruptured into a bronchus.—Dr. E. Weatherhead showed a specimen, removed post mortem, of a fœtus which had been retained in utero for 40 years. The patient had been shown at the society 39 years ago with a large abdominal tumour. One member then thought it was a fœtus encysted in the abdominal cavity, probably with a fibroid tumour of the uterus, but no other member agreed with this diagnosis, most of them regarding the swelling as a fibroid. At the necropsy, made nearly 40 years later, the tumour was found to consist of the fœtus lying in a bag of membranes, more or less completely calcified. It lay in the

breech position. All the parts were easily distinguishable. The substance of the fœtus had a curious waxy consistency, suggesting that it might be partly converted into adipocere. It had probably reached about the eighth month and weighed about 4 lb. The record cases of long retention of a fœtus reported in the Transactions of the Obstetrical Society were one by Cheston of a lithopædion, which had remained for 52 years, and another by Barnes of 42 years' standing.—Dr. F. W. Price read a paper on Newer Conceptions of Cardiac Disease.

BATH CLINICAL SOCIETY.—A meeting of this society was held on Oct. 6th, Dr. Preston King, the President, being in the chair.—Among the cases and specimens shown were: A man, aged 39, with Double Inguinal and Double Femoral Herniæ, and a child, aged 2, with Cavernous Sinus Thrombosis following an injury 14 days previously, by Dr. A. J. Bruce Leckie; a child, aged 11, with a loud Systolic Murmur heard all over the præcordial region, most marked over the pulmonary area, who otherwise showed no signs of congenital heart disease, by Dr. G. H.-H. Almond; bismuth X ray photographs, showing Gastroptosis before and after operation, and cases of Rodent Ulcer treated by zinc ionisation, by Dr. G. E. Bowker; a Thymus weighing 22½ grammes removed from a girl, aged 23, who died under chloroform during an operation for the removal of a nasal polyp, other signs of acute lymphatism being enlargement of the superior mediastinal glands and some enlargement of the spleen, by Dr. F. G. Thomson.

HARVEIAN SOCIETY OF LONDON.—This society held a clinical evening at St. Mary's Hospital on Oct. 12th, Mr. J. Ernest Lane, the President, being in the chair.—The following members showed cases: Sir John Broadbent, Bart.: Jaundice.—Captain S. R. Douglas, I.M.S., and Dr. Graham Little: Gonococcal Keratodermia Blennorrhagica.—Dr. W. H. Willcox: (1) Abdominal Tumour in a child; (2) Syphilitic Intracranial Tumour; and (3) Aortic Regurgitation.—Mr. D. C. L. Fitzwilliams: (1) Skiagrams of Renal Lithiasis; and (2) Ulcerated Non-malignant Tumour of the Tongue.—Mr. C. W. M. Hope (for Dr. William Hill): Two cases of Stricture of Œsophagus.—Dr. Graham Little: Artificial Dermatitis.—Mr. V. Z. Cope: Actinomycotic Abscess of the Cheek.—The cases were discussed by various members.

Reviews and Notices of Books.

England's Recent Progress. By THOS. A. WELTON, F.S.S., F.C.A. London: Chapman and Hall. 1911. Pp. lxiv.–742. Price 10*s.* 6*d.* net.

IN this interesting treatise Mr. Welton gives an account of his investigations respecting the movement of the English population in the course of the 20 years 1881–1901, and contrasts the first ten years with the second. The objects the author had in view when projecting this work may be briefly stated as follows: 1. To study the progress, or want of progress, of different communities, as indicated by the balance of migration in two consecutive decennial periods. 2. To consider the relative mortality in these communities at several stages of life; the effect thereon of migration; the various disturbing influences; and the extent to which local mortality has been reduced in recent years. Mr. Welton is by no means a novice in researches of this kind, as witness, among other things, his instructive essay on the growth and distribution of the population in the 90 years 1801–91.[1]

Whatever tends to the instruction of the public respecting sanitation is deserving of encouragement, as a matter of national concern. Mr. Welton's book must be welcomed as likely to promote such instruction. Based, as it is, on researches extending over two decennia, it should prove valuable as a means of gauging the amount of migration in individual populations as well as of accurately measuring their mortality. In the process of investigating local movements of population much light is incidentally thrown on questions of comparative mortality, as well as of birth and marriage ratios, all of which powerfully affect the growth of populations. In the text an account is given of the places that attract the largest numbers of immigrants, specifying those showing the greatest changes in the second decennium as compared with the first. Believing that accretions of inhabitants at ages from 15 to 40 give a better notion of the progress of a place than could be derived from study of the total movement of the population, the author limits his remarks mainly to this period of life. The movement of population at ages below 15 forms the subject of a separate chapter; it is influenced largely by the attraction of residential places for those leaving home in quest of education or of health. At ages exceeding 40 years the movement is almost confined to large towns and residential places where immigrants at this age are economically important as employers of labour.

In this country the migrations of the sexes are so dissimilar as to require separate treatment. The well-known tendency towards round numbers, which vitiates many returns, has been allowed for in the present work; as also has the tendency to misstatement of age by women who, between the ages of 25 and 40, are not unnaturally prone to understate their years. On the other hand, working-class boys as well as girls add something to their ages in order the sooner to attain the wages of adults. Moreover, old men as well as old women reaching 65 years frequently exaggerate their ages. Since 1851 the inhabitants of English towns have acquired the habit of distributing themselves over wider areas than previously. Accordingly, Mr. Welton has endeavoured so to group the parishes as to give every place an ample boundary. This is the more necessary because of the prevailing tendency for whole families to migrate from the centre to the circumference of a great city; one result of which is that the statistics of the whole area cannot be regarded as complete unless the parishes receiving such migratory families fall within the boundary chosen. It is found that the districts on the fringe of a large town are affected, not only by the usual loss of population resulting from the inability of our rural areas to retain their native-born, but by the influx of families coming from the town centre.

In the two decennial periods under notice a marked stability exists in the conditions generally prevailing. At ages 15–25 there has occurred universally a loss of rural population which affects the numbers who, at the end of a decennium, are aged 15–35. In the chief colliery districts there are gains of youths and of women somewhat older—boys, in fact, for the pits, and brides for the older men. But the high birth-rates there influence the growth of population more powerfully than do the migrations. Some of the industrial districts are adjacent to collieries and show very similar peculiarities. In cotton and woollen districts there is a tendency to lose male inhabitants and to attract females. The local birth-rates are specially low. Residential districts, for the most part, lose young men; all of them attract young women and persons of both sexes after 35. Old towns generally lose young men, and women a little older tend to leave them. These places commonly show moderate gains of both sexes after the age of 50.

In discussing the statistical methods adopted for ascertaining the tendency towards marriage in particular localities, the author dismisses as without value the simple ratio of marriages to population because of the extreme variability of the proportion of unmarried men at ages 20–35 to population at all ages. The proportion of unmarried young women also varies considerably, and so little do the statistics for the

[1] Statistical Journal, 1900, pp. 527–589.

sexes correspond that even within the limits of the County of London alone the ratio of unmarried women to unmarried men at 20–35 is sometimes as low as 60 per cent. and at others as high as 249 per cent. The author regards the proportion of men found to be in the married state at the age 45–55 as a fair measure of the general tendency to marry. The national figures indicate some falling off in the proportion of persons married, while the proportion of the unmarried seems to have increased in the last vicennium by about one-twelfth. From the figures adduced there appears to be a stronger tendency to marry in the eastern and western counties than in the busy counties of the north, whilst in the rural parts of the north of England there is also a comparative indisposition to marry. With reference to the depressed birth-rate, the author remarks that, inasmuch as the proportion of married women at ages under 45 varies considerably in the several districts, it is unsafe to compare the births with the total female population, or even with the number of married women aged 20–45. The better course seems to be that recently adopted by the Registrar-General, which consists of comparing births with the married women living under 45 years of age. Mr. Welton's figures give support to the official statement that since 1881 there has been everywhere a progressive decline in the birth-rate, particularly in the textile manufacturing places and in the residential towns.

In a work like the present statistics of mortality naturally bulk somewhat largely. From the data here presented we learn that during the prime of life the rural death-rates are considerably modified by the migration of healthy young men to towns in quest of higher wages. After years of town dwelling many of these *quondam* rustics return to their country homes seriously damaged in health by their encounter with urban conditions of life. As an instrument of comparison, Mr. Welton has devised a "scale of mortality for healthy places," which approximately fits the case of the best rural districts as existing in 1881–90, and which represents the percentage loss by death in that decennium. In the several tables appended, these rates are taken as 100, and the actually recorded rates are shown as more or less than this, according to circumstances. In justification of the use of this standard, it is contended that the rates of mortality thus indicated are not materially below a level which is easily attainable in a healthy rural district. In a series of tables the national average loss of life is worked out for each of the specified decennial periods. In the first 15 years after birth there appears to have been no change as between the first period and the second. At later ages a considerable reduction of mortality is recorded. The figures show that the scale of death-rates at ages 25 to 40, arrived at on the basis of the experiences of the earlier decennium, as representing *female mortality* in healthy districts, exceeds in the later decennium the average mortality in all districts whether healthy or otherwise. This is a surprising improvement. On the other hand, the figures indicate a relative aggravation of *male mortality* between the ages of 20–25 and 40–45, proving that unhealthy conditions affect the male sex most severely. The textile and other manufacturing towns and the colliery districts experience heavy loss of infant life. This has been aggravated in the last-named districts, and up to the close of last century had not been greatly reduced anywhere else, except in the rural parts of the South and East of England. Since 1901, however, much improvement has taken place, especially in the colliery districts.

In this connexion attention must be directed to two important sets of graphs which appear in the preface of this book—one set relating to migration at several ages, the other to the percentage losses experienced by successive generations in either of the decennial periods ended respectively with 1890 and 1900. The labour involved in the calculation of the curves necessary for the graphs—140 in number—must have been enormous. The whole work bears eloquent testimony to the energy and public spirit of the author. Considerations of space forbid the attempt even to summarise the teaching deducible from these graphs and their accompanying tables, for which reference must be made to the book itself.

After a careful perusal of this work the reader must be impressed, as we have been, with the abundance and variety of instruction it contains on subjects which are not readily accessible, and which will be found invaluable to students of vital statistics. In its present compendious form we believe that nothing of the kind has previously been published in a single volume. The book deserves a wide circulation.

A Handbook of Practical Treatment. By Many Writers. Edited by JOHN H. MUSSER, M.D., LL.D., Professor of Clinical Medicine in the University of Pennsylvania, Philadelphia; and A. O. J. KELLY, A.M., M.D., Assistant Professor of Medicine in the University of Pennsylvania. Volume I. London and Philadelphia: W. B. Saunders Company. 1911. Pp. 909. Price £3 15*s.* net the set (three volumes).

THIS important work is a systematic treatise on treatment, regarded as an art based upon scientific principles. While its object is essentially practical, the presentation of the evidence upon which the various recommendations are made is by no means neglected. As a consequence, it will extend to three large volumes. The editors have arranged their subjects conveniently and chosen their collaborators with discrimination, since the individual articles are generally of a high order. In the first volume for the most part general methods of treatment are reviewed, and questions of mechanical, electrical, climatic, and other special forms of treatment are considered.

Dr. J. H. Musser, the senior editor, contributes an introductory article on the fundamental principles of therapeutics, in which the expressions of disease and the methods of treating them are discussed. The subject of preventive treatment is dealt with in an article by Dr. C. H. Harrington, which has been revised by Dr. A. C. Abbott. In connexion with Governmental prophylaxis, the public health services of England, France, Germany, and the United States are described. Individual prophylaxis, protective inoculation, and disinfection are successively dealt with. A thoughtful and rational analysis of the general principles of dietetics is contributed by Dr. David L. Edsall, who discusses the questions of protein, carbohydrate, and fat intake, and arrives at rational and moderate conclusions, which would probably be acceptable to all except dietetic faddists and extremists. Dr. Maynard Ladd treats of the dietetics of infancy. He gives useful and full instructions in regard to breast-feeding, and describes in detail the percentage modification of cow's milk which is so strongly recommended by American pædiatrists. He gives a useful table of instructions for the carrying out of this method, which, in spite of its explicit nature, is still somewhat complicated for ordinary use.

Sir Lauder Brunton writes on the general principles of drug treatment, and reviews the main lines of treatment of the different systems of the body. Dr. Ludwig Hektoen, in an interesting article on the general principles of serum-therapy, outlines the cardinal facts known in regard to immunity, and describes the chief specific forms of treatment of infective disease. He includes vaccine treatment within this survey. Dr. Warren Coleman deals with the general principles of organotherapy, and indicates the chief practical applications of this form of treatment. Dr. Charles W. Burr contributes an article entitled "The Rest Cure, the Work Cure

and Psychotherapy," and Dr. R. Tait McKenzie, a comprehensive and instructive study of exercise, massage, and mechanotherapy. This last article is abundantly illustrated and contains some useful schemes for the application of these forms of treatment to various deformities, diseases of the circulatory system, and nutritional and nervous disorders, rendering it one of the most valuable parts of the book. Dr. Guy Hinsdale writes on hydrotherapy and balneotherapy, and Dr. Henry Sewall on climatotherapy and health resorts and on artificial aerotherapy. Electrotherapy is described by Dr. J. Montgomery Mosher, and radiotherapy by Dr. Henry K. Pancoast. The therapeutic applications of the X rays and of radium are discussed, but less attention is given to their use in malignant disease than we should have expected.

Under the heading of miscellaneous therapeutic measures Dr. George P. Müller describes the technique and uses of procedures such as venesection, leeching, passive hyperæmia by Bier's method, various forms of puncture and paracentesis, saline irrigations and infusions, and gastric lavage. This article is a specially practical and helpful one. Dr. M. Howard Fussell deals with the general care and management of the sick and the treatment of slight ailments, Dr. George Blumer with food intoxication and poisoning by reptiles and insects, and Dr. Horatio C. Wood, jun., with drug poisonings and drug habits. Dr. James Tyson contributes a short article on the treatment of sunstroke.

The remainder of the book contains an account of the treatment of diseases of the blood and of the lymphatic system and the ductless glands, the former by Dr. Richard C. Cabot, the latter by Dr. George Dock. The directions given for the management and treatment of some of the obscure and intractable conditions included under these headings are explicit and practical. A short article on the surgical treatment of diseases of the thyroid and parathyroid glands, by Dr. J. C. Bloodgood, gives a description of the operative procedures now employed in the treatment of exophthalmic goitre, and also contains reference to the parathyroid glands and their relation to tetany in connexion with operations on the thyroid gland.

Principles of Anatomy: The Abdomen Proper Described and Illustrated by Text and Plates. By WILLIAM CUTHBERT MORTON, M.A., M.D. Edin. London: Rebman, Limited. 1911. 174 pages of text, illustrated by 19 figures; and 14 plates, with special frame for same. Price complete, 42*s.* net.

THE work consists of 14 outline drawings of the abdomen, constructed in such a manner that the outlines all coincide, and when held up to the light in the special frame provided, may be superimposed and viewed as transparencies for the study of the relations of organs at different levels within the abdomen. The idea is an ingenious one, for different combinations may be made of the plates, so that various organs may be studied in their relation to each other and to the surface of the body. The text is noteworthy for the strange variety of type employed, some of the pages being irresistibly suggestive of Snellen's test types. Of the purpose of the work the author says: "It is intended not to rival, but to stimulate, practical study, to be used before dissection for a preliminary survey, during dissection for comparison and contrast, after dissection for revision, and at all times for reference." It is obvious that it cannot take the place of any of the three essentials of anatomical study—the dissecting-room subject, the dissecting-room manual, and the text-book of anatomy, though it might be a useful supplement. The author has reverted to the fashion of a former generation of anatomists in introducing his work by means of a poem of apology. The fashion was by no means a bad one, and the author owes a debt to John Bunyan, from whose "Apology" for the Pilgrim's Progress he has culled his lines. One is tempted to wish that he had quoted more fully from the Apology of the "wonderful tinker," and added the lines—

> "If that thou wilt not read, let it alone;
> Some love the meat, some love to pick the bone."

Nouveau Traité de Chirurgie. (*New Treatise on Surgery.*) Publié sous la direction de A. LE DENTU, Professeur Honoraire de Clinique Chirurgicale à la Faculté de Médecine, et PIERRE DELBET, Professeur de Clinique Chirurgicale à la Faculté de Médecine. *Affections Chirurgicales de la Poitrine.* (*The Surgery of the Chest.*) Par CHARLES SOULIGOUX, Chirurgien des Hôpitaux. Avec 48 figures. Paris: J. B. Baillière et Fils. 1911. Pp. 282. Price, paper, 6 francs; bound, 7.50 francs.

WITHIN the last few years the surgery of the chest has made great progress, and the space devoted to this subject in treatises on surgery is very much greater than it was even a decade ago. While progress has been made in many parts of thoracic surgery, it has been especially great in the surgery of the heart and of the mediastinum. In this volume we find these portions of the subject more fully dealt with. Most of the various incisions for operation on the heart are described. The author prefers the method of Delorme and Mignon. The surgery of the lung is adequately presented for a general treatise on surgery, and we are glad to see that the methods of Sauerbruch and others, which permit the pleuræ to be opened without interfering with the expansion of the lungs, are given; but the author does not express any very definite opinion on the relative value of these methods. This section is worthy to form part of the "Nouveau Traité de Chirurgie."

An Introduction to Therapeutic Inoculation. By D. W. CARMALT-JONES, M.A., M.D. Oxon., M.R.C.P. Lond., Assistant Physician and Director of the Department of Bacterio-Therapeutics, Westminster Hospital. London: Macmillan and Co. 1911. Pp. 171. Price 3*s.* 6*d.* net.

THERAPEUTIC inoculation, or vaccine-therapy, has already become established as an important means of treating many infections, and is certainly one of the most striking practical results of the study of bacteriology. Although comparatively simple in practice, it is based upon the highly complex phenomena of immunity, and its rational application demands at least a general knowledge of the mechanisms of infection and of the protective reactions of the body in response to bacterial invasion. It should be clearly recognised that the method is still in the experimental stage and that the empirical or haphazard use of vaccines is liable to lead to disappointment and to bring discredit upon a useful method of treatment. Vaccine-therapy should, as a rule, be employed only in cases in which a definite bacteriological diagnosis has been established.

Dr. Carmalt-Jones, in the book before us, has supplied a useful and practical exposition of the principles upon which therapeutic inoculation is founded, together with a review of the methods of inoculation and their results. The book is divided into two parts, of which the first deals with principles. The process of spontaneous recovery from bacterial infections is discussed, and the nature of the various antibodies is explained in simple terms. The artificial stimulation of the natural powers of recovery by means of vaccines is then described and illustrated by examples and by charts. The importance of bacteriological diagnosis is insisted upon, and the methods in use for this purpose are considered, as well as the preparation of vaccines, their sterilisation and standardisation. The difficult question of dosage is dealt with. The general nature of the results obtained and the possible causes of failure are next reviewed. The first part concludes with a brief account of

the history of therapeutic inoculation and a critical discussion of the opsonic index and its value.

The second part deals with the practice of therapeutic inoculation. Various hints are given in regard to the method of administering vaccines, and an analysis is presented of the results of treatment by this method in a variety of different conditions. The cases reviewed have either been seen by Dr. Carmalt-Jones personally or have been treated under conditions with which he is familiar, or are cases about which he has been able to obtain first-hand information. In connexion with each group of cases the minimum and maximum doses are given, and the duration of treatment and the question of relapse are also considered. Dr. Carmalt-Jones states the results dispassionately, and makes no exaggerated claims in regard to the efficacy of this form of treatment. The doses given are in many cases smaller than are used by some vaccine-therapists, and the treatment has been prolonged in not a few of the cases included in the analysis.

Dr. Carmalt-Jones's book deals in a simple, practical, and intelligent fashion with a difficult subject, and in virtue of its convenient size and freedom from technicalities it should serve a useful purpose by enabling the practitioner to apply vaccine treatment upon sound and rational lines.

A Pocket Atlas and Text-book of the Fundus Oculi, with Note and Drawing Book. Text by G. LINDSAY JOHNSON, M.A., M.D. Cantab., F.R.C.S. Eng., with Drawings from Life by ARTHUR W. HEAD, F.Z.S. With 54 figures. London: Adlard and Son. 1911. Pp. 205. Price 10*s.* 6*d.* net.

THIS book is well worth buying for the 27 excellent plates which it contains, the selection of subjects being very good. The actual drawings have been made by one of the foremost ophthalmoscopic artists of the day, and have been reproduced by the three-colour process under the supervision of Dr. G. Lindsay Johnson, who is well known as a highly expert photographer. We think that the student would hardly suffer serious loss if the atlas were enlarged at the expense of the letter-press. The latter has two faults—it is too scanty to replace efficiently the ordinary text-book, and it contains many views and suggestions personal to Dr. Lindsay Johnson and not yet generally accepted, which, though they are of considerable interest to the mature ophthalmologist, are wholly unsuitable for the student. The ophthalmic note and drawing book, which forms a detachable appendix, adds to the unwieldiness of the volume as a "pocket" atlas. Students may be urged to draw what they see, but those who have sufficient artistic skill are few.

Twice the number of plates, all equally well reproduced, shorn of the letter-press and drawing-book, would form an invaluable atlas, quite portable as a pocket companion; it might become an indispensable accessory to the text-book of ophthalmology.

The Emergencies of General Practice. By PERCY SARGENT, M.B., B.C. Cantab., F.R.C.S. Eng., Surgeon to Out-patients, St. Thomas's Hospital; Surgeon to the National Hospital for the Paralysed and Epileptic, Queen-square; and ALFRED E. RUSSELL, M.D., B.S. Lond., F.R.C.P. Lond., Physician to Out-patients, St. Thomas's Hospital. Second edition. London: Henry Frowde and Hodder and Stoughton. 1911. Pp. 454. Price 15*s.* net.

THE general practitioner frequently encounters emergencies. In large towns he can easily call in assistance, perhaps of the sort specially equipped to help him, but in the country, and especially in the more remote parts, he is often compelled to act without the benefit of the advice or assistance of anyone more experienced than himself. For men in these circumstances this book has been written, though it will also prove useful to many dwelling in towns who for great emergencies have to depend on themselves. There will very naturally be a difference of opinion as to the subjects which should be included in a work like this, and the only criticism we would offer on this point is that it was hardly advisable to include a description of wiring the patella. The risks attending opening the joint by those not specially practised in such operations are vastly greater than the benefit to be derived from an immediate suture. In this edition the authors have made many alterations, and some chapters have been re-written. A chapter on the emergencies of insanity, written by Dr. Percy Smith, has been added. This is often a very difficult subject for those in general practice, and the addition of this chapter is of special value. This second edition should achieve the marked success of its predecessor.

Handbuch der Vergleichenden Physiologie. Herausgegeben von HANS WINTERSTEIN. 15 Lieferung. Band I.: Physiologie der Körpersäfte. Bogen 1–10. Jena: Gustav Fischer. 1911. Pp. 160. Price M.5.

THE name of Bottazzi of Naples is already well known in relation to chemical physiology, and his selection as the author of the monograph "On Cytoplasm and the Juices of the Body" is a guarantee of the careful execution of the work. A very full account is given of the distribution of water and of the part it plays in vertebrate, invertebrate, and in vegetal forms of life, and the theme of no life without water is the problem discussed through many pages. There is a large number of tables, and the distribution of the chemical elements present in the body is similarly treated. The chemical composition of the constituents of cells is discussed, and while doing so the constitution, distribution, and uses of proteins, fats, and carbohydrates are set forth, particular attention being given to lipoids and their biological importance. Next the physico-chemical properties of cytoplasm are dealt with, and full consideration is given to the colloidal constitution of protoplasm. The nomenclature of Graham—sol and gel and their derivates—is introduced, while an elaborate account is given of such subjects as solutions, suspensions, emulsions, adsorption, electrolytes, imbibition, precipitation and coagulation of proteins, osmotic pressure, viscosity, and artificial and normal colloidal solutions. The study of colloids naturally leads on to the "ultra-microscope," its use, and how it has extended our knowledge of the visible constitution of so-called liquids. This "Heft," or part, breaks off at the beginning of a chapter on Definition of Colloidal Systems. Briefly, protoplasm is considered fully in its chemical and physical aspects, but the details are so numerous and technical that we can but mention the chief subjects discussed and commend Dr. Bottazzi's effort to all biologists, using that term in its widest sense.

LIBRARY TABLE.

The Life-history, Function, and Inflammation of the Appendix. An Address delivered to the Clinical Society of Manchester, January, 1911. By EDRED M. CORNER, M.A., M.C. Cantab, F.R.C.S. Eng., Surgeon to the Surgical Isolation Wards and Out-patients, St. Thomas's Hospital; Surgeon to In-patients, Children's Hospital, Great Ormond-street, &c. London: John Bale, Sons, and Danielsson, Limited. 1911. Pp. 23. Price 1*s.*—Mr. Corner gives reasons for the large number of micro-organisms in the cæcal region, and he expresses the opinion that the appendix is a storehouse of lymphoid tissue placed where it is in order to combat the micro-organisms of the cæcum. Several very striking histories are related to show that it is not at all rare to find cases of appendicitis in which no clinical evidence of any disease has been

present, and yet at the operation the presence of old inflammation and old adhesions has shown that many previous attacks of appendicitis must have occurred. Mr. Corner holds that carcinoma of the appendix is not at all rare, and that it is being found with increasing frequency when the diagnosis is made, not by the naked eye, but by the microscope. The book gives a very readable account of some of the aspects of appendicitis.

Technique de Stérilisation. Par le Dr. ERN. GÉRARD, Professeur de Pharmacie et de Pharmacologie à la Faculté de Médecine et de Pharmacie de Lille. Deuxième édition, augmentée avec 72 figures dans le texte. Paris: Vigot Frères. 1911. Pp. 352. Price 6 francs.—During the four years which have elapsed since the first issue of this book the methods of sterilisation as employed in medicine and pharmacy have increased in number, and this second edition therefore contains much more than its predecessor. The methods of sterilising instruments and dressings, the sterilisation of water, of pharmaceutical preparations, and of ligatures are described, and the methods of testing the results are also given. The sterilisation of milk has a long chapter to itself, and the disinfection of contaminated rooms is also described. Lastly, the author gives an account of the sterilisation of drinking water by means of the ultra-violet rays. The book is convenient and complete.

The Educational Treatment of Stammering Children. By T. J. T. MCHATTIE, M.D. Edin. Issued by the Medical Officers of Schools Association. London: J. and A. Churchill. 1911. Pp. 18. Price 1*s.* net.—The author considers that the cause of stammering lies in a generalised weakness in the nerve mechanism of speech, not attended in most cases by any gross physical defect. He would combat the condition in two ways: by indirectly affecting the higher centres through the muscles of respiration and speech, and by suggestive therapeutics. By the latter he does not mean hypnotism, but the getting the patient to realise that his speech organs are in perfect condition, and that there is no reason why he should not talk like other people. Enlarged tonsils and adenoids are often present, and should be removed. A report follows of the discussion on this paper when read at the association's meeting. Dr. Hulbert advocated taking the various component parts of the mechanism of speech separately, teaching them individually, and then coördinating them. Mr. Cortlandt Macmahon would, before everything else, make the patient practise "whole lung breathing," particular attention being paid to inferior lateral costal breathing; then the various vowel and consonant sounds should be taught separately and in combination. Dr. C. E. Shelly, who presided, referred to the greater incidence of stammering in boys than in girls, and suggested that in the early ages, when men were engaged in hunting, speaking was for them a disadvantage, while women at home had little else to do. He considered speech traits in the female were more stable and less easily perturbed.

An Oberland Chalet. By EDITH ELINER WOOD. London: T. Werner Laurie. 1911. Pp. 285. Price 16*s.* net.—There are some people who can attune themselves to the emotional conditions of others in whose company they are or whose words they are reading. They can thus get much enjoyment out of life, as it were, by proxy. Any such who have the *Wanderlust* will probably enjoy this record of a summer spent in Switzerland by two American ladies and the children of one of them, with later her brother and a college class-mate from Cornell. The book is breezily written, not without humour, and with glimpses of a sane philosophy. "After all, the simple life is not hard to live if you get the right setting for it," explains much that is puzzling in life; for incongruity, an appreciation of which, when others are its victims, is a great source of humour, often becomes a weariness when it affects ourselves. Save for two little trips over Latin expressions, which are as inaccurate as their introduction was unnecessary, we have enjoyed an agreeable Swiss excursion with a clever and sensible woman. There are 12 admirable pictures.

Reports and Analytical Records
FROM
THE LANCET LABORATORY.

MERGENTHEIM TABLETS.
(A. SIEBERT AND CO., 6, FANN-STREET, ALDERSGATE, LONDON, E.C.)

THESE tablets are convenient for use, presenting the therapeutic properties of the Karl spring at Bad Mergentheim, South Germany. Some evidence that the salts are derived from the spring itself and are not artificial is seen in the fact that, according to our analysis, the important salts present occur in the same ratio in the tablet as is in the natural water. We found that one tablet weighing just 2 grammes contained 0·219 gramme magnesium sulphate, 0·322 gramme sodium sulphate, and 1·26 grammes sodium chloride. The sodium chloride present serves to render the bitterness of the sulphates less marked.

(1) HEGONON; (2) ARTHIGON; (3) ATOPHAN; AND (4) HORMONAL.
(A. AND M. ZIMMERMANN, 3, LLOYD'S-AVENUE, LONDON, E.C.)

1. Hegonon is an elegant organic silver compound prepared by the action of ammonia silver nitrate solution on albumose. It is reported to have a remarkably favourable action in the treatment of urinary diseases, and particularly in gonorrhœa. Hegonon is easily soluble in water and shows an alkaline reaction. The solution does not coagulate albumin and is stable with salt solution. The amount of silver in this albuminous metallic compound is 7 per cent. 2. Arthigon is a gonococcus vaccine representing an aqueous emulsion of dead gonococci. It is regarded as an active immuniser on the gonorrhœic process. It is reported to have given excellent results in German clinical practice. 3. Atophan is said to facilitate the elimination of uric acid from the organism. It is a chemical compound containing two parts of phenylchinolin and four of carbolic acid. 4. The preparation of hormonal is based upon the view that normal intestinal peristalsis is caused by a specific cell product which appears to be chiefly stored in the spleen. To this cell product the name hormonal has been given. It is injected in equal quantities in the right and left gluteal muscles. In a few seconds a strong peristaltic wave is produced resulting in evacuation. A single injection is said to have a lasting effect.

KACEPE BALSAM.
(REITMEYER AND CO., 63, CRUTCHED FRIARS, LONDON, E.C.)

This balsam appears to be an advance on better-known preparations which have generally as their active constituent oil of winter-green. The active principle is the menthol ester of acetyl salicylic acid, in combination with the same salicylic group and ethyl ester, and lanoline ointment is used as a basis. It has been employed to relieve pain in rheumatism, gout, and sciatica.

(1) MALT EXTRACT; AND (2) MALT EXTRACT WITH COD-LIVER OIL.
(JAMES CALDER AND CO., LTD., BO'NESS DISTILLERY, BO'NESS, N.B.)

1. The malt extract showed an excellent degree of concentration, the total malt extractives amounting to 83·33 per cent. Its digestive power on starch according to our experiments is marked, the extract converting double its weight of starch in an hour at body temperature. At higher temperatures the digestivity increased considerably. The mineral matter amounted to 1·29 per cent. and contained a normal amount of phosphates. The flavour was excellent, showing that care is taken in concentrating the extract. 2. The malt extract

and cod-liver oil proved to be a uniform preparation, yielding 12 per cent. of oil on treatment with ether. The protein amounted to 4·40 per cent. and the mineral matter to 1·12 per cent. It showed the same degree of concentration as the plain extract and a similar digestive activity. We could trace no malt substitutes.

EXTRA STOUT.

(WHITBREAD AND CO., BRITANNIA-STREET, KING'S CROSS, LONDON, W.C.)

We had occasion some years ago to comment upon this stout as an example of a malt liquor which had not been artificially carbonated. We are of opinion that artificially carbonated beer is not so satisfactory dietetically as beer containing the natural gas from fermentation. We have re-examined this stout and the results show that its quality is maintained. It possesses the same alcoholic strength, exactly the same amount of proteins, the same amount of phosphates, but a slightly diminished amount of malt extractives. It is in sound ripe condition and free from excess of acidity and possesses a mild soft flavour.

MEDICINE AND THE LAW.

New Regulations affecting the Sale of Some Poisons.

IN THE LANCET of Oct. 7th, p. 1034, reference was made to the inquest upon a young man who had apparently committed suicide by drinking hydrochloric acid. It may have been noticed that in some of the accounts of the inquest given in the newspapers a witness was reported to have said that a new Act of Paliament, coming into force on Oct. 1st, would put a stop to poisons of the character indicated being freely sold by oilmen. In the evidence referred to the allusion was probably not to an Act of Parliament, but to regulations of the Privy Council recently made which came into force at the beginning of the present month and were briefly referred to on p. 1049 of the same issue of THE LANCET. These regulations are such as can be made at any time by the Privy Council under the fifth section of the Poisons and Pharmacy Act of 1908, which, among other things, forbids the sale by retail of any substance to which the section applies, unless the "box, bottle, vessel, wrapper, or cover in which the substance is contained is distinctly labelled with the name of the substance and the word 'poisonous' and with the name and address of the seller of the substance, and unless such other regulations as may be prescribed under this section by Order in Council are complied with." Two new regulations now affect the sale of the poisonous substances referred to, the first of which, it will be observed, applies to any such substance, whether liquid or not, and the other to liquid substances only. Firstly, in the retail sale of "any substance" to which the section applies the label referred to in the section cited above is to bear the additional words, "not to be taken," which are to be "distinctly printed" thereon. Secondly, in selling retail any "liquid substance" to which the section applies, "such substance shall not be delivered or sent out except in bottles or containers rendered distinguishable by touch from ordinary bottles and containers." These provisions are not difficult to comply with, but care will have to be taken that they are observed strictly. We do not go so far as to say that if the word "poison"—more usually used than "poisonous" in such a connexion—be printed upon the label a serious offence is committed against the section, but at the same time a fine not exceeding £5 may be imposed for any infraction, and according to the section "poisonous" is the word which ought to be used and not "poison." The word "printed" is not employed in the section with regard to the label, perhaps because many vendors find it convenient to keep labels bearing the words "poisonous" and their name and address printed on them, and are in the habit of adding in writing the name of the substance sold. We do not say that this is desirable, but only point out that the section says the substance must be "distinctly labelled," whereas under the regulation the words "not to be taken" must be "printed." In the second regulation "rendered distinguishable by touch" is not very explicit, but at all events the use of the fluted bottle long associated with the sale of poisons by druggists is an obvious compliance with the rule, and an ordinary "container" of any kind such as is commonly used for holding non-poisonous liquids will be illegal. Another Order in Council under the same section will come into force on Feb. 1st of next year enlarging the scope of the section by adding to the substances to which it applies "liquid preparations containing more than 5 per cent. by weight of free ammonia." The section originally affected the sale of sulphuric acid, nitric acid, hydrochloric acid, and soluble salts of oxalic acid, provision being made for addition to the list by Order in Council. The regulations described above seem to render accidents with poisonous substances less likely to occur, but the use of them by persons determined to commit suicide is not affected.

The Carrying of Pistols.

The necessity for stringent legislation against the easy purchase and promiscuous carrying of pistols is emphasised by the following cases, all reported in a single copy of a weekly newspaper published on Oct. 14th: 1. The murder of a stationmaster at Lintz Green, a village near Newcastle, apparently shot with a pistol by a man whose motive was robbery. 2. The suicide of a foreign woman who shot herself with a revolver in a hotel, a verdict of suicide being returned by a jury in the Westminster coroner's court. 3. The wounding of a constable in Oxford-street by a man who had attempted to rob a shop, the window of which he had broken with a brick. The person who fired the shot escaped, but a man arrested on another day and charged with the offence was remanded at the police court after evidence had been given that when arrested he had upon him a magazine pistol loaded, a spare magazine also loaded, and 28 loose cartridges. 4. A man summoned and fined £4, with 4*s.* costs, for being found in possession of loaded firearms and also for discharging a revolver. He appears to have made some threat about shooting when hiring a taxi-cab, and after arriving at his destination to have entered a house and discharged his weapon from an upper window. Before being sentenced he was remanded for a week in order that he might be medically examined, but eventually evidence was given to the effect that he was sane, and the penalty mentioned was imposed. A case in which serious allegations of assault and intimidation are made against a number of men is not included in this list, but is one which, whatever its issue may be, is instructive as to the familiarity of youths of the rougher classes with dangerous weapons. Law-abiding citizens and the police are alike entitled to better protection than they now have.

Death from Drinking Carbolic Acid.

The accidental drinking of carbolic acid is a not infrequent cause of death or injury, but the facts shown at the inquest upon a young stockbroker, Mr. Hubert A. R. Burrough, at Barking recently were of an unusual description. He appears to have gone on board a French vessel, the *Bougainville*, lying in the Thames, with four other persons not connected with the ship and to have inspected her, after which all were invited by the captain into his cabin, and glasses were brought. The captain finding that a bottle containing port which had already been opened had not sufficient wine in it, went to his sleeping cabin and took what he believed to be a fresh bottle from a cupboard. It has been a regulation on board French ships that carbolic acid should be carried for purposes of disinfection, and that it should be in bottles having a red label with a statement of the contents of the bottle and of their dangerous character. According to his evidence the captain took from the cupboard a bottle of the shape of a port bottle and having a black seal, and from it filled the glasses. All present simultaneously raised their glasses in response to a toast, and had swallowed enough to render five of them seriously ill and to cause the death of Mr. Burrough before they discovered that instead of wine they were drinking carbolic acid. That its characteristic odour was not detected by any of them before drinking was partly accounted for by the statement that the vessel was laden with chemical manure, and no doubt the fact of a toast being proposed and an effort made to drink simultaneously contributed. At the same time it is remarkable that accidents should so often occur through the drinking of liquids containing carbolic acid, ammonia, and other drugs the odour of which might be expected to compel the consumer's attention. At the inquest on Mr. Burrough it was stated that another form of disinfectant has recently been substituted for carbolic acid on board French vessels. The verdict of the coroner's jury was one of accidental death.

THE LANCET.

LONDON: SATURDAY, OCTOBER 21, 1911.

The One-Portal System.

IT is an open secret that evidence has been given recently before the Royal Commission sitting to inquire into the affairs of the University of London, the effect of which has been to bring to the notice of the Commissioners the advantages which might be reaped by the University if some scheme of fusion between that body and the Royal College of Physicians of London and the Royal College of Surgeons of England with regard to their respective medical curricula could be brought about. It is obvious that in London (and for the moment we are considering London only) the same representatives of medicine, surgery, and midwifery, and other subjects teach and examine at the University and the Royal Colleges, while the organisation of medical education in London is largely—and admirably, it should be added—controlled by the same individuals. Yet there are separate boards of examiners appointed by the University and the Royal Colleges in all branches of study, as well as separate examinations. This obviously expensive position, leading alike to an unnecessary multiplicity of examinations for the hardly-pressed students, as well as to a great waste of time for all concerned, has been seriously considered by both the English Royal Colleges, while the Chancellor of the University of London has been for the past two years in possession of the views of the governing bodies of the Colleges. These views, as readers of THE LANCET know, indicate the desirability of a certain coöperation between the Colleges and the University, if a joint scheme can be arrived at under which neither the prestige of the University would be endangered nor the corporate privileges of the Colleges sacrificed. Whether anything will definitely result from such communications as have yet passed between the Colleges and the University is doubtful, but what is not in doubt at all is that the liberal attitude of the Colleges makes that favourite conception of all medical reformers, the one-portal system, a genuine possibility again.

There was a time not long ago when we were forced to class the one-portal system as a dream, having regard to the imminent creation of new universities and the probable opposition of the Royal Colleges. But circumstances have combined to cause many of those who have the best interests of medicine at heart to estimate the one-portal system as the solution of the more difficult of the problems that now vex sorely medical education; and those who see in the one-portal system merely a desire for something new, a wild attempt to attain an unnecessary form of symmetry in affairs essentially unsymmetrical, are exactly the opponents of the one-portal system who should recognise the force of precedent. For their sakes we point out that a little over 30 years ago the one-portal system of medical education was nearly established after years of negotiation by representative officials appointed by the English universities and medical corporations. In 1878, when these negotiations were practically complete, the following distinguished men were representing the contracting bodies: Sir HENRY ACLAND and Sir GEORGE ROLLESTON, the University of Oxford; Sir GEORGE PAGET and Sir GEORGE HUMPHRY, the University of Cambridge; Dr. G. H. PHILIPSON (the present Sir GEORGE PHILIPSON) and Dr. GEORGE Y. HEATH, the University of Durham; Sir RICHARD QUAIN and Dr. W. B. CARPENTER, the University of London; Sir J. RISDON BENNETT and Sir HENRY PITMAN, the Royal College of Physicians of London; Sir JAMES PAGET and Mr. JOHN MARSHALL, the Royal College of Surgeons of England; and Mr. EDWARD BRADFORD and Dr. GEORGE CORFE, the Society of Apothecaries of London. The scheme went through many vicissitudes, partly due to difficulties connected with the charters of various bodies and partly due to jealousies arising through the proposed appointments of representatives on the governing body and on the Board of Examiners. At last, however, all was settled harmoniously and the General Medical Council agreed to recognise a conjoint scheme which as far as England went would have been a one-portal system. Alas, by the withdrawal of one of the bodies, this prospect was ruined. How much simpler and better would the method of qualification be now but for the withdrawal of that one body! For if the one-portal system had been established then there is little doubt that the creation of new universities would have only added to its strength. And this scheme, moreover, was not for England only, although it is true that in England alone were the details complete. In Scotland and in Ireland systems were in the course of creation on identical principles. The scheme was this. The universities, of which there were then but four, were to appoint representatives on a body called the Committee of Reference formed by the Royal Colleges of Physicians and Surgeons and by the Society of Apothecaries. These three bodies were to conduct a one-portal examination with the sympathy and advisory influence of the universities, and the universities agreed not to grant their degrees in Medicine and Surgery to anyone who had not passed this one-portal examination. At the same time the universities reserved to themselves the right to exact such further conditions for their degrees as they thought fit, and the corporations reserved the same right in regard to their diplomas. The degrees of the universities were therefore to be not qualifications to practise, but academic distinctions—clearly what they ought to be.

We bring the consideration of the one-portal system before our readers, then, as a policy which after all may be the practical one. No one denies that the multiplicity of educational bodies able to give students the right to practise medicine is an undesirable thing; it leads to complications in professional life as well as to a plethora of examinations and a mass of useless labour and routine, while it entails upon the General Medical Council very delicate work in standardisation. The General Medical Council has statutory power to recognise any combination of bodies for conducting a qualifying examination in medicine, surgery, and

midwifery. A former scheme for a one-portal system has so nearly succeeded that careful followers of precedent need not feel that in supporting a movement towards a general combination they are doing anything dangerously experimental. The Universities of Oxford and Cambridge may be trusted to uphold the principle that their medical degrees are academic acquirements and not licences to practise. Our belief is that if the University of London and the English Colleges can arrive at a basis of agreement, the one-portal system with its many advantages might be found by all the other qualifying bodies to be the remedy for admitted difficulties in medical education.

The Harveian Oration.

IN delivering the Harveian oration for this year before the Royal College of Physicians of London Dr. C. THEODORE WILLIAMS chose as his subject one that fully carries out HARVEY'S injunctions to exhort "all Fellows and Members of the said College to search and study out the secrets of Nature by way of experiment." There is probably no one condition that has been more carefully studied in all its aspects than pulmonary tuberculosis—its etiology, pathology, and treatment, both curative and prophylactic, have received attention from physicians and scientists for generations. In a masterly and scholarly manner Dr. WILLIAMS considers the progress of knowledge in regard to pulmonary tuberculosis since the time of HARVEY, dwelling more particularly on treatment. If we take a general survey of the therapeutics of the disease since that time, we can conveniently review the principal measures which have been introduced in three periods, the first being reckoned from the earliest date until 1882, when KOCH'S classical experiments determined the causation of the disease by the tubercle bacillus; the second period extending from then until 1890, when tuberculin was introduced; and the third from that time to the present.

Before the discovery of the tubercle bacillus the treatment was necessarily empirical in character, the true etiology of the disease not having been determined. Nevertheless, occasionally there was an interesting rehearsal of future methods. Noteworthy is an "Essay on the Treatment and Cure of Pulmonary Consumption," by GEORGE BODINGTON of Sutton Coldfield, published in 1840. In THE LANCET of July 11th, 1840, we published a review on the work in which we remarked: "The modest and rational preface with which the author introduces his pamphlet on pulmonary consumption has so far influenced us that we shall merely give an outline of his principles without expending any portion of our critical wrath on his very crude ideas and unsupported assertions ..... The measures, then, which Mr. BODINGTON assures us have been 'uniformly and completely successful in the treatment of several cases of tuberculous consumption' are detailed in the following passages. ..... More agreeable or seductive medicaments could not certainly be found in any pharmacopœia: fresh morning air to make the patient breathe; good wine to bring down his pulse, a good dinner to make him eat, and an opium pill to make him sleep." This was truly prophetical of the future "sanatorium treatment" combined with measures likely to prevent auto-inoculations. Dr. WILLIAMS also draws attention to the remarks of SYDENHAM, "the great physician of gout and fevers," who, after giving a rather striking sketch of an advanced case of pulmonary tuberculosis, describes a less acute case, and considers that the treatment "which would suffice would be to abstain from meat and wine for a few days and to take a balsam of sulphur and anise with sugar in the form of tablets and then a cough mixture of oil of sweet almonds, syrup of maidenhair, and syrup of violets, this to be taken off a stick of liquorice." SYDENHAM likewise forecasts the use of active exercise, for he says: "Of all the remedies for phthisis, long and continued journeys on horseback bear the bell. ..... Bark is no surer a cure for ague than riding for phthisis." Dr. WILLIAMS then dwells rather fully on the treatment of consumption at the time of LAENNEC, LOUIS, JAMES CLARK, and others, in order to show that the short duration of life in their cases was closely connected with the depressing measures—e.g., bleeding and emetics—then in vogue, and that the disease was not, as has been urged, of an utterly different type from that which now prevails when the duration of life is much greater. Dr. WILLIAMS also refers to the introduction of cod-liver oil, which, he asserts, has exercised a wonderful effect in the outlook of the disease. After the discovery of the tubercle bacillus efforts were made to kill the germ directly by means of bactericidal drugs taken by the mouth, inhaled, introduced directly into the air passages, and injected into the veins or subcutaneous tissues. Very many substances were employed, and although success has been claimed by some observers, in the hands of others satisfactory results were not obtained. Indirect measures were then adopted which were supposed to act by rendering the soil unsuitable for the growth of the bacillus, or, in other words, by "increasing the resistance of the patient"; this is a vague term which has received various explanations. Foremost amongst these measures was the open-air or sanatorium treatment. Dr. WILLIAMS gives a brief history of the movement, which was at first elaborated at German institutions. The various phases through which the sanatorium method has passed are well known. BREHMER and DETTWEILER were amongst the earliest pioneers, the latter in particular laying stress on the importance of rest. He established the "Liegehalle system." WALTHER of Nordrach took an opposite view and enjoined outdoor walks, whilst M. S. PATERSON, medical superintendent of the Brompton Hospital Sanatorium at Frimley, has evolved a system of graduated labour which has been attended by encouraging results. Dr. WILLIAMS also comments on the favourable effect of mountain climate in suitable cases. The introduction of tuberculin by KOCH once again raised hopes that a specific remedy against tuberculosis had been found. The earlier results, however, were disappointing, but within recent years numerous modifications of the original substance have been made and tried, and at the present time in one form or another tuberculin is being extensively employed. The modern view of treatment by this method

differs considerably from that formulated by KOCH. As originally used, tuberculin occasionally produced a stormy reaction, giving rise to dangerous destruction of tuberculous tissue and even setting free tubercle bacilli. It is now found, however, that an immunising response can be obtained without causing a reaction, namely, by using very minute doses, which produce the desired effects—toxic immunity and local hyperæmia. The exact technique employed by different physicians varies, as also does the composition of the remedy. Dr. WILLIAMS urges further investigation, but expresses the opinion that such observation should be carried out in a hospital or sanatorium rather than at a tuberculin dispensary. He also refers to the theory of auto-inoculation which has been advanced by A. C. INMAN and M. S. PATERSON to account for the benefit produced in those patients undergoing treatment by graduated labour.

In conclusion, Dr. WILLIAMS discusses the prophylactic measures which have been adopted in the crusade against tuberculosis. That the decrease in the incidence of the disease has been in large measure due to improved drainage, more cubic space, and less overcrowding there can be no doubt. The problem of the housing of the working-classes is one of the chief elements in the prevention of tuberculosis. The education of the masses in the principles of cleanliness and ventilation is essential, for if the population as a whole is aware that these principles are necessary for the prevention of the disease a powerful factor for good will have been established. In order to combat tuberculosis two principal achievements are required: the first, to establish immunity against the disease (this must be done by collaboration of the physician and the worker in the laboratory); the second to improve sanitary conditions, not only in large cities but also in villages. The remarks of Dr. WILLIAMS in this year's Harveian Oration will be an incentive to further labours on the part of all those who are genuinely anxious to assist in the conquest of what is still one of the most fatal of maladies.

The National Insurance Bill.

OUR admirable contemporary, the *St. Bartholomew's Hospital Journal*, publishes this month three articles and a prefatory editorial note, which together amount to a symposium on the National Insurance Bill. Dr. CHRISTOPHER ADDISON, who speaks with the fullest knowledge of the Chancellor's intentions as well as of his actions, contributes an article in support of the Bill, and incidentally explains his own attitude towards the vexed question of the income limit. Mr. T. J. VERRALL, who has recently come forward as a candidate for the vacant post of Direct Representative for England on the General Medical Council, and who may be taken as speaking for the leaders of the British Medical Association, writes of the present state of the Bill in terms of qualified approval. Mr. VERRALL makes the very good point that Mr. LLOYD GEORGE and the public must be told that the profession "not having sought this modification of its mode of practice is even less disposed to bind on itself fetters of inadequate pay." Lastly, there is a breezy unsigned article entitled, "The £2 per week Income Limit," which claims to speak from inside knowledge. This sharply criticises the alleged action of a committee meeting of the Representatives at Birmingham under the chairmanship of Mr. VERRALL, and accuses the British Medical Association of giving way on the essential point of the demand for an income limit. The anonymous writer, indeed, suggests that the withdrawal of Sir PHILIP MAGNUS'S amendment and the passing of Dr. ADDISON'S amendment would never have happened unless the Chancellor of the Exchequer had been given to understand that the medical profession had "climbed down" on the question of the income limit. The circumstances narrated for the first time in the third article and the inferences drawn from them would certainly not pass unchallenged if the article were supported by a signature. According to the editor of the *St. Bartholomew's Hospital Journal*, the writer suggests that "the bulk of the profession has been kept ignorant of a want of firmness on the essential of an income limit in the Bill." We believe, however, that according to Mr. LLOYD GEORGE there was never any intention on his part to agree to an income limit.

These three articles seem to us to reveal only more clearly the position of deadlock which we have indicated in our recent surveys of the progress of the National Insurance scheme. On the one hand, the British Medical Association has stated more than once, and now most explicitly,[1] that it will not modify in any way the policy which has been formulated by it and approved by the profession. This is the more necessary because one of the original and most vital of the six cardinal points of the Association's policy has already been set aside by the vote of the House of Commons: we refer, of course, to the demand for a £2 per week wage limit for all insured persons. On the other hand, evidence is daily accumulating that the leaders of the Friendly Societies have no intention of relaxing their demands for the control of the administration of medical benefits. Thus, at the annual meeting of the National Conference of Friendly Societies, which was held last week at Edinburgh, the delegates, "representing over 4,000,000 benefit members of Friendly Societies in the United Kingdom," passed resolutions to this effect, and further resolved that in the event of Parliament not conceding their minimum demands they would recommend the whole of the societies throughout the country strenuously to oppose the passing of the Bill. It seems clear, therefore, that the Chancellor is faced by two ultimatums. Without the support of the medical profession he cannot work his scheme. He has not yet won this support by granting all their demands. Nevertheless, what he has already done to reconcile the medical profession has raised a storm of angry protest among the members of the Friendly Societies, which grows fiercer and more menacing as the Autumn Session approaches. Whatever may be the political results of their insistence, the medical profession at least will not give way.

[1] Brit. Med. Jour. Supplement, Oct. 14th, 1911, p. 394.

Annotations.

"Ne quid nimis."

THE BRUSSELS SURGICAL CONGRESS.

THE Third Triennial Congress of the International Society of Surgery, which was held at Brussels from Sept. 26th to 30th, proved to be quite as successful as those which had preceded it and fully maintained the high standard reached by previous sessions. Indeed, in one respect at least it was more satisfactory. At the second Congress the wide range of subjects chosen for discussion and the large number of speakers rendered the completion of the programme somewhat difficult. On this occasion, however, the arrangements obviated any such difficulties and provided ample time for the due consideration of the various papers and reports. The formal opening of the Congress was performed on Sept. 26th by M. Berryer, the Belgian Minister of the Interior, and the scientific proceedings were inaugurated by a presidential address from Professor Lucas-Championnière. The President referred briefly to the great advances made by surgery during the past century and the opening years of the twentieth century, and indicated the marked changes that have come about even in the short space of time which has elapsed since the last Congress. The President paid a particularly warm tribute of affection and admiration to Lord Lister. A large number of valuable papers on surgical and allied subjects were read during the sessions of the Congress, and they were followed in many cases by interesting discussions. The reports on the treatment of chronic colitis were entrusted to Professor Paul Segond of Paris, to Professor C. L. Gibson of New York, and to Mr. D'Arcy Power, the British representative on the International Committee. We hope to publish in an early issue an account of this and other features of the Congress. British visitors to the Congress were especially struck by the generous hospitality which was freely offered by the inhabitants of Brussels to the members, and they cannot speak too highly of the warmth of their welcome and the excellence of the entertainments provided for them by their hosts. Professor A. Depage, who has up till now filled the onerous post of secretary, and to whom the success of the society is so largely due, was chosen as President of the next Congress. This is to be held in New York in 1914, when the subjects for discussion will be (1) Surgery of the Duodenum; (2) Plastic Surgery; and (3) the Technique of Amputations. Only one note of regret is to be sounded with regard to the Congress of 1911, and that is that there was not a much larger attendance in the British section. Seventeen members attended the meeting in 1908; 24 in 1911.

MEDICAL EQUIPMENT FOR MERCHANT SHIPS.

THE committee appointed by the Board of Trade, at the request of the General Shipowners' Society of London, to consider medical scales for merchant ships has gone carefully into the whole question, and has recommended four revised scales for adoption in place of those now in force. For ships which will have a medical officer on board, including emigrant ships, two separate scales are drawn up—one for those in the North Atlantic trade, where voyages are short and numbers of passengers and crew are large, the other for those ships which with smaller passenger lists go longer voyages abroad. For each of these classes the necessary instruments are detailed, including a steriliser large enough to take a pair of long midwifery forceps. It has not been thought necessary to recommend a microscope and bacteriological outfit such as are required in the larger steamers of some foreign Powers, but the equipment of instruments and appliances for clinical work has been modernised, and it is recommended that an endeavour be made to secure the appointment of a second medical officer to ships with a crew and passenger list of 1500. It is further noted that the professional care of these large numbers would be facilitated if a qualified dispenser also were employed. The other two scales are intended for merchant ships which do not carry a medical officer and for fishing boats. One scale applies to all merchant ships whose voyages ordinarily last more than five days, the quantities of the medicines they are to carry being based on the number of men in their crews. The other, named an emergency scale, for vessels never more than five days away from harbour, applies to all other sea-going ships; but coasting craft whose voyages last no more than 24 hours may either conform to the emergency scale or carry the ambulance hamper of the St. John Ambulance Association or something similar. Anti-diphtheritic serum, sealed and dated, is to be carried by all emigrant ships, and a germ-proof filter by all that go to sea for more than five days. An improved carron oil, antisepticised by eucalyptus or other essential oil, might have been recommended, but the selection of drugs and preparations has been well made and marks an advance. Attention is drawn to the dangers which arise from the indiscriminate sale on board ships of patent medicines, sea-sickness specifics, and the like. But the most important recommendation of the committee, apart from the scales, is that which draws attention to the need for separate and reserved accommodation in cargo vessels for men of the crew who have fallen ill or been injured. We trust that the Board of Trade will adopt this recommendation, which would involve the provision, adjacent to the officers' cabins in the after part of every ship, of a spare cabin of about 250 cubic feet definitely allocated as a hospital and so marked, to be examined by the sanitary inspector on his periodical visits and reported in good order, and kept ready for its special uses and in no other way employed.

INFANT MORTALITY IN AMERICA: AN URGENT CALL FOR ACTION.

AN Association for the Study and Prevention of Infant Mortality has been founded in the United States, and at its first meeting at Baltimore an address was delivered by Mr. Edward B. Phelps setting forth the present appalling waste of infant life in that country, and suggesting the establishment of day nurseries as the best known means of reducing it. In the treatment of this subject, so far as it concerns the United States, the writer labours under the disadvantage that the vital statistics of that country are by no means complete; and this is particularly true respecting the returns of birth and of mortality. That this is the case Mr. Phelps is constrained to admit. Very early in his address he propounds the question, "What is, or has been, the infant mortality of the United States as a whole?" and he answers the question by saying that "Nobody knows, and there is no means of finding out." Mr. Phelps quotes the opinions of several European authorities, including Sir George Newman in this country, and Dr. Cressy Wilbur and Dr. L. Emmett Holt of New York, from whom he gathers the conclusion that the present sacrifice of infant life all the world over amounts to not less than 13 in every 100 live births. He further emphasises, what is familiar knowledge, that this can only be an average figure, as amongst the less favoured sections of every community infant mortality is certainly much higher than this. The excessive waste of infant life in the United States, as in this country, is mainly

the result of three obvious conditions—poverty, ignorance, and neglect, the evil effects of which by no means terminate with the first year of life. Says Mr. Phelps: "The same conditions which cause the death of 13 out of every 100 born ..... leave more or less stamp on perhaps two or three times as many more babies who somehow manage to crawl over the infant dead line, many of whom will be the fathers and mothers of the next generation. The problem of infant mortality, therefore, is far more than one as to means of decreasing the number of infant deaths. Its scope is worldwide, and on its partial solution, at least, depends the welfare of posterity. The 'call for action' on such a problem may fairly be termed urgent." We quite agree with Mr. Phelps.

PRURITUS ANI.

PRURITUS ani is so distressing a complaint and the treatment of it has hitherto proved so unsatisfactory and uncertain, that any new light thrown upon its nature should be welcomed. Dr. Dwight Murray, of Syracuse, N.Y., read a paper on the subject before the recent meeting of the American Proctologic Association at Los Angeles, which gives food for reflection and further observation. In the first place, he took occasion to separate true pruritus ani, a most intractable condition of uncertain causation, from other anal complaints provocative of itching, such as fissure, ulcer, diseased crypts, pediculosis, and so forth, which are more amenable to treatment directed to the cause. The skin about the anus in all cases of true pruritus, he says, is always thickened, radiating in folds, in most cases macerated and lacking pigmentation, parchment-like, and fissured. There is a general tendency to nightly periodicity, the itching recurring with considerable regularity, and no relief is obtained by scratching. During 1910 Dr. Murray had cultures made of all the cases, 19 in number, that presented these characteristics, and found streptococci present externally on the skin in every case. A similar investigation of five other cases of rectal disease showed a very few streptococci in one case only, the other four being entirely free from this micro-organism. A blood test in each of the pruritus cases further showed that the patient's resistance against streptococci was low, while it remained high for other micro-organisms. Starting from these premises, Dr. Murray and his associate, Dr. F. M. Meader, bacteriologist to the Syracuse Medical College, treated eight of these cases with an autogenous vaccine, with the result that itching ceased, reaction to the injection was restored, and streptococci ceased to be found in smear and swab, after a period of treatment varying from the first to the eighth injection. In one case a lowered resistance to bacillus coli was also found, and in this case vaccines of both organisms were used. In several cases a change in the character of the itching was noticed first. Dr. Murray's series of cases all occurred in males; he has only two records of true pruritus in women, and concludes that women are less frequently affected with it than men. It is possible, he thinks, that the infection often penetrates the skin, in which case relapse would be liable to recur until the germs are entirely eliminated. It has occurred to him also that possibly other parts of the body may become infected from this source, and that to it may be traced some instances of puerperal fever, erysipelas, and other streptococcic diseases. He concludes, therefore, that pruritus ani may have streptococcic infection as its primary cause or as a secondary cause after the passing away of some other primary cause; that the streptococcic-infection theory seems at any rate to have a practical value for the patient and medical man; that other organisms, especially bacillus coli, may complicate the infection; and that an autogenous vaccine made from a culture of the offending germ, with or without auxiliary palliative measures, offers the best hope of cure. He is confirmed in these opinions by later observations to be presently published. The matter is one that lends itself to investigation, and there should be no difficulty in obtaining a sufficient body of evidence from various sources to establish the truth or otherwise of his deductions and the efficacy of the treatment that he proposes for more extended trial by the medical profession.

THE USE OF BAER'S MEMBRANE FOR THE MOBILISATION OF ANKYLOSED JOINTS.

IN the *Boston Medical and Surgical Journal* of July 20th, Dr. R. B. Osgood has reported from the orthopædic department of the Massachusetts General Hospital three cases which show the possibility by means of Baer's membrane of preventing reunion in joints that have been mobilised after bony ankylosis of several years' duration. Baer's membrane is obtained from the bladder of the pig, sterilised, and chromicised, like catgut. It is supposed to remain in the body for 30 days before it is absorbed, but Dr. Osgood has seen it still unabsorbed and strong 11 weeks after insertion. In the first case the patient was a single woman aged 26 years. At the age of 8 years she suffered from polyarthritis after typhoid fever and at 10 from "rheumatic fever," which was followed by chronic arthritis of most of the joints. This had remained persistent ever since. Physical examination revealed nothing except chronic arthritis, which seemed to be quiescent. She could open her mouth only a quarter of an inch, and the movement seemed to be wholly in the left articulation. On Nov. 17th, 1909, Dr. E. G. Brackett tried to break down the adhesions under ether, but they did not yield to as much force as he thought safe to apply. On Nov. 21st he made an incision, 1½ in. long, forward from the right auditory meatus, and a second incision, ¾ in. long, downwards from the same point. The subcutaneous tissues were dissected back, exposing the lower margin of the zygoma and upper portion of the ramus. With a narrow osteotome the condyle was excised and the end of the ramus was rounded and shaped. Baer's membrane was wrapped around the ramus and retained by catgut sutures, and the wound was closed. Two days later the patient could separate her jaw half an inch more than before operation and there was no severe pain. The wound healed by first intention, and she was discharged on the twenty-fourth day able to separate the jaws over an inch. On Jan. 27th, 1910, she was readmitted. The motion had increased slightly, but recently a swelling had appeared in the region of the wound and broken. Since this time there had been a slight sero-purulent discharge which was greater at night. On slight pressure bloody, creamy pus exuded. On Feb. 10th the sinus was enlarged by a small incision, and the membrane, still tough and intact, was removed. She was discharged, and a letter, dated March 21st, was received, stating that the wound had healed and motion remained good. In the second case the patient was a youth, aged 19 years, whose knees were ankylosed at 25°. He suffered from poliomyelitis in childhood, and a surgeon performed double excision of the knee and removed the patellæ. The ankylosis followed. It seemed best to straighten and stiffen one knee, since all power was lost in both quadriceps in consequence of old poliomyelitis, and to mobilise the other. This would enable him to rise more easily from the sitting posture, the hamstrings still showing some power of contraction on the side in question. On Feb. 4th, 1909, Dr. Brackett straightened the left knee by removal of a wedge of bone. Firm union resulted. On Feb. 18th a U-shaped incision, with convexity downwards, was made over the right knee, and the flap turned up by dissection from the bone. With a blunt dissector a small

opening was made posteriorly between the vessels and the bone just above the line of the old excision. Through this opening was pushed the flexible blade of an ordinary carpenter's coping saw, teeth upward. The femur was sawn through from behind forward, making a convex lower end. About a centimetre of bone was removed from the tibia, leaving the end concave and loosely fitting the end of the femur. The ends of the femur and tibia were each covered with Baer's membrane, which was secured with silk sutures. The wound was closed and a posterior wire splint was applied. After two weeks the splint was removed and the mobility was found to be free and attended with little pain. Healing had taken place by first intention. A split plaster splint was applied from the toes to the groin. Gentle passive motion was performed daily. After a month a slight serous discharge began and continued for a month. Passive movement to 90° was possible and almost painless. After two months a calliper splint with a knee-cap was applied and weight-bearing was begun. Daily passive movement with massage was continued. At the end of three months there were full passive flexion to nearly 90° and marked lateral mobility. As there was no quadriceps there was no voluntary extension, but voluntary flexion was possible. The patient was given a steel brace jointed at the ankle and knee, with a drop catch at the latter, ensuring rigidity in walking and allowing flexion in sitting. With this he got about by the aid of two canes. A second operation—implantation of silk ligaments—was performed to produce greater stability of the well-established flail joint. The final result was that he could get about with a brace and one cane and rise easily from the sitting posture. In the third case a man, aged 23 years, had bony ankylosis of the elbow in a straight position, with total loss of pronation and supination, the result of a compound fracture in childhood. A similar operation to those described was performed. Complete extension, voluntary flexion to 120°, and a few degrees of pronation and supination were restored, so that the arm was useful. In all the cases a serous or slightly purulent discharge occurred from some portion of the wound in from three days to four weeks after the operation.

PHYSICAL TRAINING IN SECONDARY SCHOOLS.

THE Welsh Department of the Board of Education has recently issued a circular on physical training in secondary schools for the information and guidance of school authorities in Wales.[1] The Board wisely recognises that physical training should always be at least as much a question of school hygiene and of medical science as of educational organisation in a more limited sense, and that this is especially true in the case of secondary schools. It is therefore anxious that due attention should be paid to the subject by school authorities in order that the organisation and technique of physical training may be based on sound principles. The object which the Board has in view is the careful and well-balanced cultivation of the physical powers of each individual child; and this, it believes, can only be attained, so far as physical exercises are concerned, by the appropriate application of a graded system of exercises, founded on physiological principles and adapted to the age, needs, and capacity of each pupil. The memorandum has been prepared by the medical department to the Board of Education and is signed by Sir George Newman, the chief medical officer. It opens with an admirable account of the interrelation between mental and physical training in the true education of the growing child. The mental and moral effects of physical training are clearly summarised, and a special point is made of the healthy public spirit which is encouraged by the combined efforts and coöperation of a number of children. The memorandum next refers in some detail to the effects of physical exercises on the growth and development of the brain, through the intimate connexion between the brain and the neuromuscular system. It also points out that the recreative effects of physical training are of great value, apart from their disciplinary effects, and that if a lesson, which is really a game, is not thoroughly enjoyed many of the desired results will be lost. Physical training in the strict sense of the term is defined as the application of methodical and formal exercises for the purpose of securing certain definite and controllable effects, and its importance as a supplement, as a preliminary, and as a corrective to general athletic sports is insisted upon. Of the various systems of physical exercises the Swedish is held to be the best for use during school life, since it develops all parts of the body harmoniously according to physiological principles. Having enumerated the advantages of the Swedish system the memorandum recommends that all secondary schools should adopt it. But a note is added that the value of Swedish exercises is greatly diminished if they are not applied in accordance with the principles of the system. Useful hints are given on the construction and arrangements of a suitable gymnasium and on the organisation of classes. The teacher should possess expert training and should be a member of the regular school staff. In this respect girls' schools have the advantage of boys' schools, for at present there are extremely few English male teachers possessing such qualifications, while there are many expertly trained women teachers who are thoroughly competent to interpret the principles of Swedish exercises and also to supervise the games. As is repeatedly pointed out in the memorandum, the teacher is everything in physical training; ignorantly applied the Swedish system can work mischief. Although rule-of-thumb methods in arranging the progression of exercises in individual cases are to be deprecated, the exercises themselves are given definite forms in order to obtain definite effects, and any departure from them by a non-expert instructor should be discouraged. The memorandum concludes with a few valuable and suggestive notes on the relation of school medical officers to physical training. Whenever there is a routine medical inspection it is considered desirable that the arrangements for physical training should be to some extent under the general supervision of the school doctor, and that there should be close coöperation between the medical officer and the gymnasium instructor. Thus, the former would do well to familiarise himself with the system of exercises and with the effects which they are likely to produce, so that he may decide on the fitness of pupils for particular exercises, and may be alert for the symptoms of over-strain or other harmful effects.

[1] Memorandum on Physical Training in Secondary Schools in Wales (with Monmouthshire), 1911. Published by His Majesty's Stationery Office. Price 2d.

TRAUMATIC RUPTURE OF THE RECTUS MUSCLE.

IN the *Journal of the American Medical Association* of Sept. 2nd Dr. M. A. Stern has reported an unusual injury—traumatic rupture of the rectus muscle. A man, aged 40 years, was pushing a heavily loaded truck from the platform of an elevator. The platform was several inches below the floor, so that when he pushed the truck on to the latter it rebounded and struck him in the abdomen. He felt pain at the time, but it passed off, and he worked for the rest of the afternoon. On the following morning he sought advice for intense pain over the seat of the injury. He walked in a stooping posture, which seemed to ease the pain. On examination he was found to be muscular and well nourished. There was moderate arterio-sclerosis. The pulse was of good volume and tension, and the temperature was 99·1° F.

The abdomen was exquisitely tender over a spot about 2 inches square, ½ inch below, and 1 inch to the left of the umbilicus. At this point there were swelling and rigidity. He was sent to hospital, where an ice-bag was applied. On the third day the pain had increased, rigidity and tenderness had become more localised, and the swelling had increased. At no time was there an abrasion or ecchymosis of the abdomen. Although there had been a good action of the bowels it was decided to perform exploratory laparotomy. An incision was made over the swelling. As soon as the rectus muscle was reached a considerable quantity of dark blood and clots welled up. The hæmatoma was wiped out and the left rectus muscle was found torn completely across and badly lacerated. Its sheath was intact. The peritoneum was opened, but no injury of any viscus was found. The muscle was sewn to the sheath and the bleeding points were ligatured. The abdomen was closed with drainage and good recovery ensued. Dr. Stern accounts for the rupture of the rectus without internal injuries by the fact that the man was struck when pushing a heavy load with both recti contracted to their full extent. The absence of any injury of the skin is also noteworthy.

THE DISTRIBUTION OF HOSPITAL COLLECTIONS.

AT the British Hospitals Association's recent meeting at Manchester the distribution of the Hospital Saturday and Sunday Funds formed the subject of an interesting paper by Mr. C. Hopkinson. He points out that those charged with the distributing of the sums collected for these funds in various localities have the choice of two theories upon which to proceed—viz., either to act on a presumption as to the wishes of the donors or to aim at such distribution as shall ensure the greatest possible relief to suffering. Obviously no direct evidence is available for aggregating and averaging the wishes of the respective donors, though assistance can be obtained from a consideration of the efficiency and economy in management, of the amount of work done by the respective institutions, of the individual hospital subscription lists, and of the poverty of particular institutions as measured by their annual deficit. The desire to get as much as possible for any expenditure, he says, is sufficiently general to suggest that the average donor will desire efficiency and economy of management to be taken into account in dividing contributions. The amount of work done by the institutions is an obvious factor, while the individual hospital subscription lists are a reliable measure of the importance of the several institutions in the public mind. The last factor he concedes to those who "might desire that the extravagance and consequent poverty of one hospital as compared with another, that the lethargy of one hospital as compared with another in collecting funds, should be favourable elements in considering distribution—the class, in fact, who would prefer to give a shilling to a beggar in rags on the way to the workhouse rather than to a decent workman to prevent him pawning his tools." To proceed on the second theory, Mr. Hopkinson says, it would be necessary to base conclusions on facts ascertainable from the statistics and accounts of the hospitals. The ideal method of carrying this out is that adopted by King Edward's Hospital Fund—viz., by competent lay and medical inspection. This method renders necessary the keeping of accounts on a recognised uniform system to facilitate comparison. It stimulates efficiency and economy of management, concentrates effort, and prevents overlapping. It is, however, hardly practicable in other towns than London. The writer recommends, with a view to the attainment of similar ends in smaller towns, the establishing by the Association of an annual standard cost per head (1) for a child in hospital; (2) for a convalescent in a convalescent home; (3) for medical and surgical in-patients, with an estimate of what would be a fair extra allowance per operation; (4) for each out-patient accident case; (5) for each ordinary out-patient case; and (6) for each home patient. He suggests the amount of work done as the basis of distribution, using the cost of that work at standard rates for calculating percentages so as not to put a premium on extravagance. A percentage, he thinks, should be deducted from all grants when the standard cost is exceeded, and in any case the grant should be limited to the amount of the true deficiency for the year. The method adopted in Manchester—viz., by taking the gross expenditure as a criterion, in place of the work done or of a standard expenditure based on the work done—he regards as highly unsatisfactory. The gross expenditure is taken of each hospital, and from that are deducted the aggregate receipts from invested funds, direct collections, profits from private nurses, payments for or by patients, and students' fees; and thus a nominal deficiency is arrived at in proportion to which the funds are distributed, the amount to be paid to any one hospital being limited to one-fourth of the Fund. On this system, as Mr. Hopkinson points out, it is quite conceivable that a hospital should be saving money and yet be receiving substantial grants, for no regard is paid to income from subscriptions or large donations. This, in fact, appears to have been the case in the past with the old infirmary, which at one time, while receiving grants, was annually investing money. At the present time, however, the new, enlarged, and entirely modern hospital shows, according to the Sunday Account Funds, a deficiency of more than one-third of the entire deficiency of the hospitals assisted, and yet it is allowed to receive only one-fourth of the fund collected. "Is it possible," asks Mr. Hopkinson, "to have a stronger condemnation of the method?"

SYPHILIS OF THE BLADDER AND OF THE UPPER URINARY PASSAGES.

IN the September number of the *Annales des Maladies Génito-urinaires* Professor M. N. A. Mikhailoff, of the Hélène Pavlovna Clinical Institute of St. Petersburg, has written on syphilis of the bladder. Until recently syphilis of the bladder and kidneys was never recognised except at a necropsy, but modern diagnostic methods have made it much less difficult to recognise during life syphilitic lesions in these organs. Professor Mikhailoff has described a case which was under the care of Professor Filling. The patient was a woman, 39 years old. She complained of a feeling of weight in the loins and of a periodic hæmaturia for the last five years. On examination she was very thin and anæmic. Thirteen years previously she had had a normal labour, and for 15 years the feeling of weight in the loins had been present. The hæmaturia already mentioned had become more abundant and frequent during the last two years, appearing every two or three weeks and lasting two or three days; it was not accompanied by any pain and the temperature remained normal. There was no tenderness of the abdomen. The specific gravity of the urine was 1090 and it was alkaline. Microscopically there were many urinary epithelial cells and a few pus cells. By means of the cystoscope the trigone was seen to be hyperæmic and the opening of the left ureter was dilated. Some groups of papules were also seen near the ureteral orifices, as well as on the upper and lateral walls of the bladder; each papule was covered by greyish-yellow scales. Wassermann's test was applied twice; on the first occasion the result was negative, but a week later it was positive. The patient was treated with mercurial pills and with iodide of potassium, and the bladder was washed out with a solution of boric acid. During the treatment the bladder was re-examined

by the cystoscope several times, and on each occasion improvement was seen in the condition of the mucous membrane. The quantity of urine also increased from 1000 c.c. to 1500 c.c. in the 24 hours. A month after the first cystoscopy the hæmaturia had ceased, and the mucous membrane of the bladder was almost normal. The positive Wassermann test and the results of treatment make the diagnosis certain.

ACTINOMYCOSIS IN NORWAY.

Professor Harbitz and Dr. Backer Gröndahl have recently published (*Norsk Magazin for Laegevidenskaben*, June) an account of the incidence of actinomycosis in Norway, where this disease has lately been carefully studied. The first case published in Norway dates from 1887, and for many years afterwards the disease attracted scant attention. More recently a number of cases have been reported from different parts of the country, and at the Pathological Institute in Christiania 87 cases have now been studied, with special reference to the source and course of the infection, as well as to the varieties of fungi found in different lesions. The seat of infection was the cervico-facial region in 39 cases, the lungs in 20, the abdomen in 26, and the skin in 2. The disease was twice as frequent in men as in women. Its incidence was not greater than usual in the months August to January. Many of the patients were town-dwellers, and most were recruited from the eastern and southern provinces, the west coast, including Bergen, being extraordinarily free from the disease. In the cervico-facial region the disease is chronic but benign and tends to spontaneous recovery. All the 39 patients so affected recovered. The primary focus in this class could seldom be found, but it was twice localised in the tongue, once in the submaxillary gland, and occasionally there was a history of aching gums early in the disease. In the lungs the disease was invariably fatal. The primary focus was in the pulmonary tissue: infection from the œsophagus to the lungs, as described by some writers, was never observed. Usually the first sign of the infection was a broncho-pneumonia. In the abdominal form 20 per cent. recovered. The primary focus existed in the appendix in nine patients, and this was also probably the case in five others. In these cases the appendix was usually scarred, or it presented a perforation leading directly to an abscess. The spread of infection may be intra- or extra-peritoneal. In the former case it often involves and perforates the bladder, when the fungi may be found early in the urine. In the latter case it may track up behind the diaphragm, and an empyema may be the first sign of an abdominal infection. Of the 2 cases of primary skin infection one occurred in a man who worked in a corn-field without stockings. He died in spite of radical treatment, including amputation at the thigh. Passage of the fungi by the blood-stream was occasionally observed in the later stages of the disease, when distant organs such as the brain and the lungs became involved, but spread of infection by the lymphatic system was never seen, and the authors emphasise the diagnostic value of this point. In 16 cases of actinomycosis hominis they succeeded in isolating one and the same facultative anaerobic fungus differing from that which most German writers have described as pathogenic (Boström's type). It also differed from every aerobic type cultivated from various plants. An identical growth was once cultivated from bovine actinomycosis, 7 cases of which were examined. Professor Harbitz and Dr. Gröndahl consider it probable, but not proved, that human and bovine actinomycosis are caused by the same or by closely allied fungi. Numerous attempts were made to isolate from corn, straw, hay, and the air the same anaerobic fungus; none but the familiar aerobic fungi could, however, be found, and these were not pathogenic to rabbits or guinea-pigs, nor could any progressive actinomycotic inflammation be induced. The writers locate the site of infection either in the lining of the respiratory tract or in the digestive tract which has been infected by swallowed matter. Less is known of the source of infection. Infection from cattle to man, or from man to man is not proved and is highly improbable. Probably the pathogenic fungi are derived from various plants; but how and where they live in nature is unknown. J. H. Wright has suggested that the fungus pathogenic to man and cattle does not exist elsewhere, and that it is often present in the mouth of man, becoming pathogenic with trauma. This theory is worthy of consideration, but it requires further support. The diagnosis of actinomycosis by complement fixation or agglutination was found by the writers to be impossible, and owing to the capriciousness of the disease and the variability of its course, it is difficult to estimate the value of the various remedies in use, including potassium iodide. Twice the writers used a vaccine made from sterilised cultures of the fungus; the treatment was quite negative in one case, and in the other case, which presented advanced abdominal disease, there was considerable improvement. The perusal of this interesting paper leaves the reader with the unsatisfactory impression that there are vast and numerous lacunæ in his knowledge of a disease which has commonly been treated by text-books as a cut-and-dried subject.

PLAGUE AND RATS AT SHANGHAI.

ONE of our Indian correspondents recently commented very fully on Dr. Arthur Stanley's report on the public health of Shanghai which has recently reached us. The details of the crusade against plague-rats which has been carried out in Shanghai deserves more detailed notice. In December, 1908, it was found that plague-infected rats were present in Shanghai; during 1909 and 1910 a complete plague survey of the settlement was carried out. The number of infected rats having been found to be increasing towards the end of 1910, a system of rat destruction was started, and over 18,000 houses were disinfected and made temporarily rat-proof. Owing to the vigorous action taken no outbreak resulted; six deaths only occurred. The number of cases is not stated; presumably it was six. Unfortunately there was considerable excitement among the Chinese population, leading almost to riot; in the end it was agreed that search for Chinese plague cases should be conducted by Chinese doctors from an independently instituted Chinese plague hospital, as is done in Hong-Kong. Dr. Stanley is quite clear as to the rat being the essential cause of plague epidemics, the flea (P. cheopis and C. fasciatus, especially the former) being the carrier; of the rats examined about 70 per cent. were M. rattus (in houses) and 30 per cent. M. decumanus (in sewers). Much work on the subject has been done in the public health laboratory, where over a thousand pathological specimens were examined, besides 19,000 plague cultures from rats.

A FURTHER Commission on Sleeping Sickness is about to be despatched to Nyasaland under the auspices of the Tropical Diseases Committee of the Royal Society. Colonel Sir David Bruce will be in charge of the Commission, and Lady Bruce will again accompany him to Central Africa. He will be assisted by Captain A. E. Hamerton, R.A.M.C., and Professor R. Newstead of the Liverpool School of Tropical Medicine, who are both already in Nyasaland. Sir David and Lady Bruce will sail from Marseilles on Nov. 10th. They will journey by the Zambesi and Shire rivers to Zomba,

the capital of Nyasaland. It is anticipated that the Commission will investigate sleeping sickness for three years.

Mr. J. Bland-Sutton has resigned the post of senior surgeon to the Chelsea Hospital for Women in order to devote himself more strenuously to his duties at the Middlesex Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

MEETING OF COUNCIL.

A QUARTERLY meeting of the Council was held on Oct. 12th, Sir HENRY T. BUTLIN, the President, being in the chair.

The best thanks of the Council were given to Mr. Alban Doran for his valuable services in revising the catalogue of gynæcological specimens in the Museum, and it was resolved that an illustrated guide to the gynæcological section of the Museum, prepared by Mr. Doran, be printed.

Sir FREDERIC S. EVE, on behalf of the Committee of the Annual Report of the Council, submitted a draft copy of the report to be presented to the Fellows and Members at the annual meeting on Nov. 16th, and the report was approved and adopted.

Sir W. Watson Cheyne was re-elected a member of the Committee of Management.

The PRESIDENT reported that he had reappointed Mr. C. W. Mansell Moullin the representative of the College on the Medical Board of the University of Wales for three years.

ANNUAL REPORT OF THE COUNCIL.

The Council have issued their annual report, which is to be presented at the meeting of Fellows and Members on Nov. 16th. With reference to the resolution which was passed at the last annual meeting regarding the admission of Members to direct representation on the Council, the report states that as the matter referred to in the resolution was fully considered by the Council during the year they were not prepared to reopen the discussion.

With regard to a letter from the Registrar-General asking the opinion of the College as to "whether a surgeon, in signing a death certificate, should mention the fact of an operation having been performed shortly before death," the following statement of their views has been made by the Council: (*a*) The Council are entirely in accord with the view of the Registrar-General that it is his duty to endeavour to secure the best possible certification of deaths; and they are of opinion that in every case in which an operation has been performed medical practitioners should be recommended to mention the operation in their certificates of the cause of death. (*b*) The Council are of opinion that, under the "Suggestions for Medical Practitioners" in the printed books of medical certificates forms, a general direction should be inserted to the effect that, in all cases where an operation is known to have been performed which has any reference direct, or only indirect, with the cause of death, the fact should be mentioned in the certificate of death. (*c*) The Council are of opinion that ample provision already exists for the protection of the public as regards coroners' inquests, and the Council do not consider that registrars should be instructed to inform the coroners of all cases in which an operation is mentioned in a death certificate.

The report states that the scales of medicines and medical stores issued by the Board of Trade for merchant ships are being revised, and that the revision has been entrusted by the Board to a committee consisting of members of their medical staff and representatives of the Royal Colleges of Physicians and Surgeons and Pharmaceutical Society of Great Britain, with the addition of a representative of the shipping interests concerned. Mr. C. T. Dent has been appointed to serve on the committee as the representative of the Royal College of Surgeons.

With reference to the suggested scheme for conjoint examinations with the University of London, it is stated that the Royal College of Physicians have notified the College that they were not prepared to take any further steps to promote the scheme. In consequence of this withdrawal by the Royal College of Physicians from the scheme prepared by the delegates of the two Colleges, and approved by the Council of the Royal College of Surgeons in March, 1910, it became necessary to abandon the idea of offering evidence jointly with the Royal College of Physicians to the Royal Commission on University Education in London, and to consider whether any, and, if so, what, evidence should be offered by the Royal College of Surgeons on its own account. After several suggestions had been made and considered the following resolution was finally adopted: "That, as it has been found to be impossible to proceed with the suggestion by this College for combined examinations for medical degrees by the Royal Colleges and the University, the Council do not lay any detailed proposals before the Royal Commission, but instruct their delegates, besides stating their individual views, to point out the disability under which London medical students are placed owing to the difficulty of obtaining degrees in the Medical Faculty of the University—a difficulty not experienced in other parts of the United Kingdom; the action taken by this College in the past with the object of removing this disability; and its continued willingness to coöperate in any scheme for making the degrees in the Faculty of Medicine more accessible to London medical students." The delegates appointed to give evidence on behalf of the College are Sir Henry T. Butlin, Bart. (President), Sir Henry Morris, Bart., and Sir Alfred Pearce Gould, K.C.V.O.

The National Insurance Bill, so far as its provisions concern the medical profession, has been considered by a committee of the Council appointed for the purpose, and at two special meetings of the Council; and a letter was transmitted to the Chancellor of the Exchequer by the Council directing his attention to certain matters which are regarded as of the utmost importance by members of the medical profession. The letter is contained in the report, together with the reply of the Chancellor.

Some alterations have been made in the regulations for candidates for the diplomas of M.R.C.S. and L.R.C.P., with a view to securing more thorough instruction in pathology. All candidates who pass the examination in anatomy and physiology after Jan. 1st next will be required to produce evidence of having attended at a recognised medical school a course of lectures on pathology during not less than six months, instead of during not less than three months, and of having received "practical instruction in pathological histology, including not less than eighteen classes," and "practical instruction in clinical pathology and bacteriology, including not less than eighteen classes."

For some time past classes for dissections have been held at several of the medical schools in the vacation months of April and September, and a modification has now been made in the regulations for the Fellowship to meet these conditions. The requirement that the candidate must produce evidence "of having dissected at a recognised medical school or schools for a period of not less than eighteen months during the ordinary sessions or terms" has been altered by the omission of the words "during the ordinary sessions or terms," and by the addition of the following note: "Dissections during the regular vacations will be accepted, provided the certificate shows that they have been performed under the superintendence of an authorised teacher in a medical school."

On the recommendation of the Board of Examiners in Dental Surgery an alteration has been made in the regulations for the licence to enable candidates, if they desire, to take separately mechanical dentistry and dental metallurgy, the two parts of the First Professional Examination. Acting in conjunction with the Royal College of Physicians, the Council have decided to institute a conjoint Diploma in Tropical Medicine, and regulations have been drawn up and approved by both Colleges. Examiners have been appointed, and the first examination will be held this month.

The income of the College for the past year amounts to £25,703—an increase of £150 on that of the previous year. The examination and diploma fees for the Membership, Fellowship, and Diploma in Public Health remain at nearly the same figure in each case, but there is an increase of £139 in the fees for the Licence in Dental Surgery. The expenditure in respect of revenue amounts to £23,421—a decrease of £251. Under general expenses of examinations a reduction of £891 is to be found in the case of the Membership, due mainly to the absence of any large expenditure for extraordinary purposes by the Conjoint Examining Board. The general working expenses of the College in Lincoln's Inn-fields show an increase of £106, the chief differences occurring under law expenses and furniture and fittings, the expenditure under the former being less and that under the latter more than in the previous year. The special expenses of the Museum are £392 more than in the previous year. There are increases under the heads of salaries and wages, catalogues and reports, specimens and appliances, and furniture and fittings. The special expenses of the library remain at about the same figure. The extraordinary expenditure amounts to £1203, and includes sums of £405 for seven years' premium for fire insurance, of £120 for an epidiascope, and of £193 for the Hunterian Festival. There are also items for certain expenses in connexion with the building of the new Examination Hall in Queen-square which the committee have thought it desirable to write off under current expenditure.

The number of diplomas issued during the period with which the report deals is: Membership, 325; Fellowship, 59; Licence in Dental Surgery, 101; and Diploma in Public Health, 41.

The year has been one of much progress for the Museum, and the report contains many interesting details. Considerable progress has been made in revising and rearranging the specimens which illustrate the general principles of pathology. By the end of last year it became apparent that the space devoted to the display of the pathological collection was insufficient for its present needs and future growth, and that steps must be taken to provide room for the expansion of this part of the Museum. After careful consideration it was resolved to devote the floor space of Room III., at present occupied by a miscellaneous series of specimens, to the exhibition of the section of general pathology (estimated at 1100–1200 specimens), and thus set the lower gallery of that free for the growing sections of special pathology. The floor space of Room III. provides accommodation for displaying the specimens illustrating the general principles of pathology to great advantage—an advantage which may be realised in Rooms I. and II. where the floor space is occupied by the series of human anatomy. The section of general pathology, from the number and quality of its specimens, deserves the best space and the best setting that can be given it, for no other museum can show such a collection. This section includes many of Hunter's most valued preparations. By rearranging the tables in the floor space of Room I. it was possible to provide accommodation there for the four cases containing specimens showing the development of the human skeleton now in Room III., thus obtaining the double advantage of placing these specimens in their true position in the Museum and obtaining floor space for the extension of the pathological collection. To provide accommodation for the series of invertebrata it was found necessary to carry out alterations in a building at the eastern end of the Museum, usually known as the librarian's house, but which has been used for purposes of the Museum for over 30 years. In this building, which is entered from the staircase at the eastern end of Room V., there are two floors, an upper and lower, each of which is partitioned off into two small rooms. The upper was used for store purposes and the lower contained the ever-growing collection of surgical instruments and the stationary collection of vegetable specimens. Plans were prepared for the alteration of the building, and at considerable cost alterations have been made whereby the upper room will provide accommodation for the invertebrate and vegetable collections, while the lower will allow an extension of the space now available for the series of surgical instruments—a valuable and instructive collection—and also accommodation for the medico-legal collection which the Council in November, 1910, resolved to form. This scheme of alterations has been carried out during the months of July, August, and September of the present year. The need for a central and representative collection of

specimens required in medico-legal investigations has been felt by experts in England for many years. The obstetrical and gynæcological series of the pathological collection has been re-examined and re-described, and the series as now arranged contains 560 specimens, all of which have been studied and examined with great care and remounted when necessary. The collection of defective and malformed pelves has been greatly enriched by the addition of 28 specimens formerly in the possession of the Obstetrical Society of London and presented to the College during the present year by the Royal Society of Medicine. Specimens illustrating diseases and injuries of the ear are at the present time represented mainly by the historic Toynbee collection. Mr. Arthur Cheatle has generously presented his private collection of specimens illustrating this series—a most valuable gift—and the report adds, "it is hoped that Fellows and Members will present such specimens as will make this section of the Museum thoroughly representative of modern knowledge." Much progress has been made in the application of the card-form of catalogue, and descriptive cards of the preparations of human anatomy have been made and placed in the entrance hall cabinets. The number of visitors for the year was 13,342, rather more than half coming on Friday and Saturday, when the Museum is open to nurses and lady visitors. The number for the previous year was somewhat larger. Fifty-four women medical students have taken out tickets permitting them to study in the Museum on any week-day. The admission of special classes on Saturday afternoons has been continued, and altogether 75 classes were admitted, 22 being classes of teachers from the London County schools, 33 ambulance classes brought by their teachers from polytechnic, natural history, and other educational institutions. Regarding the College library, the supply of books and periodicals has been well kept up, and the work of cataloguing has made good progress. During the year the library has been open 272 days and the number of readers has been 10,627.

During the past year the death of one Honorary Fellow has been reported, together with 28 Fellows. The list of deceased Members shows a considerable increase on that of last year, but this is accounted for by the fact that in this year's list are included the names of several Members whose deaths took place in former years but have not been previously recorded in the College books.

Public Health.

REPORTS OF SCHOOL MEDICAL OFFICERS.

City of Bradford.—Dr. A. Lewis Williams's report contains plans of a school for cripple and deaf children of thoroughly modern plan. The more prominent features are the ample provision for ventilation, the amount of lighting area, and the facilities for teaching in the open air. The windows are sash windows and can be lowered into a recess at the bottom of the frame, thus giving the whole space for ventilation; diagrams of these windows are given in the report. A table gives a comparison of general conditions found at medical inspection for the three years 1908, 1909, and 1910, and in every case there has been a very decided improvement. A larger percentage of the children look healthier and fewer are described as anæmic. Good nutrition has risen from 24·4 per cent. in 1907 to about 70 per cent. in 1910. Probably this is to be ascribed to the provision of school meals, the Bradford scheme for which is so well known. Another interesting point about the table is that it shows that the parents are taking more interest in their families, the children being better clothed and shod. Improvement in cleanliness is ascribed to some extent to the facilities for bathing, but conditions of the heads must be placed to the credit of the parents. The number of cases of verminous heads found is now very small. Dr. Williams regrets that, owing to the time absorbed in inspection necessary to comply with the Board of Education's requirements, certain other work of the utmost value and importance has had to be curtailed, such work as that of the re-examination of children found to have some defect, examination of special cases referred by head teachers, visits to special schools for the mentally defective, blind, and deaf, occasional visits to secondary schools, examination of children who have been accidentally hurt, and examination of girls in secondary schools *re* gymnasium exercises. Dealing with nutrition, Dr. Williams classifies 1·5 per cent. boys and 2 per cent. girls as poor and very poor nutrition, but classifies 19 per cent. boys and 17 per cent. girls as anæmic and pale, this latter figure corresponding somewhat closely with the 22·5 per cent. boys and 22 per cent. girls responsible for the normal class in nutrition. The conditions treated in the School Clinic remain as in previous years—namely, defective vision, ringworm, running ears, chronic inflammation of the eyes and eyelids, scabies, impetigo, and verminous and sore heads. In October, 1910, a full-time dentist was appointed and will inspect and treat such cases as he considers suitable. Dental inspection will be carried out in the children aged from five to eight years, as during this time the permanent teeth are appearing, and by prompt attention may be saved if they are decayed. The children so inspected will be re-inspected once every subsequent year, and further treatment carried out if required. The whole group of children inspected this year and in subsequent years will therefore be made and kept dentally sound and leave school with good teeth. The treatment at the clinic consists of extracting septic teeth and scaling and preserving carious permanent teeth; urgent cases are dealt with at a special time; local anæsthetics will be given if needed. Another interesting addition to the clinic is the treatment of stammering children; 317 cases were discovered by a special inspection, of whom 239 were boys and 78 girls. 156 stammerers were treated at the clinic during the year, and an analysis of the conditions found ascribes 20 per cent. of all cases to imitation, 7 per cent. to shock due to fright, while diphtheria, scarlet fever, and pneumonia are responsible for 8 per cent. Treatment consists of breathing exercises and exercises to control the exit of air from the lungs and to strengthen the mouth and cheek muscles.

City of Manchester.—The medical officer's report is published as a section of the eighth annual report of the education committee, which is full of information of the greatest possible interest to school medical officers, and is also freely illustrated with photographs of schools, groups of children, and school buildings. Particularly interesting is the account of the Manchester country school, which is held ten miles from the town at Mobberley. The school was started in June, 1904, as an experiment, and has now been definitely taken over by the corporation. A special feature of the school is that a class of 40 children are transferred for a period of 14 days from the town school to the country school at Mobberley (regular school instructions on a modified scheme being given under the surroundings of rural life), half-time in school and half-days for walks, outdoor lessons in natural history, and organised games. The larger part of the cost in connexion with the school has been provided by voluntary subscription, more than half coming from the teachers of the day elementary schools in the city by means of jumble sales, concert parties, &c. The health of the children sent to the school has been excellent, and considerable improvement in weight has been noted. A plan is given showing the elevation of the school, and a photograph of the spray baths. The entire site covers 18 acres and the school gives accommodation for 320 children. The children are in residence during the fortnight and have to pay a sum calculated to cover the cost; with 4000 children a year it is estimated that the school will be self-supporting. Dr. A. Brown Ritchie refers to the requirements of the Board of Education, and points out that the attempt to do the inspection required has led to some of the other work getting behind. Special attention to ringworm was paid during the year, and many more cases than were suspected have been discovered, of which this report says that only about half are under control. Two interesting special reports are provided—one makes a comparison of the physique of Jewish children and other children, and one deals with the conditions associated with backwardness in children. It appears that while Jewish children have the advantage over other Manchester children as regards both height and weight (and at 13 years a Jewish boy is 5·56 lb. heavier than the others), in no case do they reach the anthropometric standard of 1883. Bad vision is very prevalent amongst Jewish boys; this probably may be put down to the fact that the Jewish boys spend on an average 2½ hours each day acquiring the Hebrew language at a private school in addition to ordinary school work. No Jewish children are returned as having bad nutrition, and only 0·4 per cent. as having rickets and deformities, as against 2·5 per cent. for others. "To sum up," the report says, "Jewish children have the advantage in height, weight, mental capacity, nutrition, diseases of the heart and blood, bronchitis, nervous diseases, tuberculosis other than lung trouble, rickets, deformities, and teeth; but they suffer more from bad vision, phthisis, enlarged tonsils, and adenoids." The advantages are ascribed to the conditions of the Jewish home life. Backward children are divided in two groups: (1) backward on account of mental condition; and (2) those backward from physical defect or from some temporary circumstances. It is suggested that these children could be best dealt with by special classes at the ordinary schools to which children from adjoining schools could be drafted.

This would not interfere with the ordinary work or with the ordinary routine of the school life, and such a plan as this would make intermediate schools unnecessary.

County of Bedford.—The chief difficulty in Bedfordshire is that experienced in following up cases and in their treatment. The comparative table of conditions in urban and rural districts is interesting. Mr. W. J. Butcher classifies 25·1 per cent. boys in urban areas as being of bad nutrition and 21·8 per cent. boys in rural districts. Attention has been called to nutrition percentages in other reports, and the very wide divergencies make it plain that no uniform standard is being used. Mr. Butcher, in an addendum to the report, goes into the question of treatment, and makes the suggestion that the education authority should spend £100 a year on the treatment of the most urgent vision cases, and in subscription to the local hospitals in exchange for letters which would enable at least the most urgent cases of enlarged tonsils and adenoids to be treated. The formation of care committees is also considered, with lady visitors to visit the homes and also school nurses. No school nurse has as yet been appointed, and it is to be hoped that Mr. Butcher's very modest scheme will be duly sanctioned.

County of East Sussex.—Mr. A. G. R. Foulerton considers that enlarged tonsils and adenoids cause more ill-health in East Sussex than any other single disease or defect. Some very marked cases are noted in his report. Out of 273 children for whom operative treatment was recommended in 1909 51 per cent. obtained treatment within six months. Out of 346 children in 1910 35 per cent. received treatment. The schools are revisited after inspection at an interval of two to four months, and of 1372 children noted for treatment in 1910 50·22 per cent. obtained it, the corresponding figures for 1909 being 1353 and 49·8 per cent. Coöperation with the local sanitary authorities has usually been effective. But two cases are quoted of apparently capricious closure of a school on account of an outbreak of infectious illness which appeared to be already over when closure was required. There is also an instance where closure for three weeks by advice of the county medical officer for diphtheria (the school not having been visited by the local authorities concerned) was followed by an order for another closure of three weeks given four days before the school would normally have reopened on account of a drainage defect which could have been discovered and dealt with earlier had the premises been visited earlier. These disorders of coöperation appear to be due to the unwieldy overgrowth of the local sanitary area concerned. Dr. Arthur Beeley presents two special reports on (1) Dental Caries and (2) on the Relation of Enlargement of Glands of Neck with Enlargement of Tonsils, Caries of Teeth, and Impairment of Nutrition Respectively. Tables displaying the relation of these various factors are given, but would have been more valuable if greater help had been given in their interpretation.

County of Salop.—Dr. James Wheatley's report pays considerable attention to dental caries, rules for the prevention of which are formulated and have been circulated among the medical practitioners in the county. Voluntary helpers have been appointed in 190 schools out of 279 to assist in obtaining treatment. About half the children with defects appear to have been treated, more than half by private practitioners.

County Borough of Halifax.—Dr. D. M. Taylor has made special efforts to enlist the sympathetic coöperation of parents. Evening addresses have been given at some schools on personal, school, and home hygiene. Visitors' or exhibition day is condemned reluctantly. The clinic held at the medical offices treats the usual school ailments. A successful class for the treatment of stammerers has been held, the Berquand method being used; out of 22 children 18 were cured, two improved, and two remained as before.

DONATIONS AND BEQUESTS.—By the will of the late Dr. F. W. Pavy, Guy's Hospital will receive £2000 for the maintenance and upkeep of the "Pavy Gymnasium," founded by him. The testator also left £1000 to the British Medical Benevolent Fund.—His Highness Sir Chandra Shum Shere Jung has sent a donation of £1000 towards the new laboratory extension fund at the Brompton Hospital for Consumption and Diseases of the Chest.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 77 of the largest English towns, having an estimated population of 16,157,797 persons in the middle of this year, 7671 births and 4633 deaths were registered during the week ending Oct. 14th. The annual rate of mortality in these towns, which had steadily decreased from 21·2 to 15·2 in the seven preceding weeks, further declined to 15·0 per 1000 in the week under notice, and was 1·6 per 1000 below the mean annual rate recorded during the third quarter of the present year. In London last week the death-rate was equal to 15·4 per 1000, while the recorded rates in the other large towns ranged from 6·5 in Burton-on-Trent, 6·8 in Handsworth (Staffs.), 7·0 in King's Norton, and 8·3 in Walthamstow to 19·5 in Dewsbury, 19·6 in Bury, in Hull, and in Sunderland, and 23·3 in Oldham. The 4633 deaths from all causes in the 77 towns last week were 74 less than the number returned in the previous week, and included 512 which were referred to the principal epidemic diseases, against numbers decreasing from 2900 to 802 in the seven preceding weeks. Of these 512 deaths, 357 resulted from infantile diarrhœa, 44 from diphtheria, 39 from enteric fever, 35 from whooping-cough, 27 from measles, and 10 from scarlet fever, but not one from small-pox. The mean annual death-rate from these epidemic diseases last week was equal to 1·7 per 1000 against 3·4 and 2·6 in the two preceding weeks. The deaths of infants under 2 years of age attributed to diarrhœa, which had steadily decreased from 2714 to 628 in the seven preceding weeks, further declined to 357 last week, and caused the highest annual death-rates of 2·7 in Swansea, 3·3 in West Hartlepool, 3·4 in Burnley, and 3·5 in Wigan. The deaths referred to diphtheria, which had been 46 in each of the two preceding weeks, were 44 last week, and included 13 in London and its suburban districts, 4 in Liverpool, 3 in Norwich, and 3 in Hull. The fatal cases of enteric fever, which had been 35 and 37 in the two preceding weeks, further rose last week to 39; 6 deaths were recorded in St. Helens, 5 in Hull, and 3 each in London, Nottingham, Bradford, and Leeds. The deaths attributed to whooping-cough, which had been 61, 51, and 55 in the three preceding weeks, fell to 35 last week, and included 5 in London, 5 in Sunderland, and 2 each in St. Helens, Leeds, and Stockton-on-Tees. The deaths referred to measles, which had been 26, 19, and 18 in the three preceding weeks, rose to 27 last week; 7 deaths were registered in Wolverhampton, 4 in London, 4 in Liverpool, and 2 in Burnley. The 10 fatal cases of scarlet fever were 8 fewer than in the previous week, and was the lowest number returned in any week of the current year; 4 deaths occurred in London and 2 in Salford. The number of scarlet fever patients under treatment in the Metropolitan Asylums and in the London Fever Hospital, which had steadily increased from 1327 to 1793 in the six preceding weeks, had further advanced to 1966 on Saturday last; 355 new cases of this disease were admitted to these hospitals during the week, against 240, 333, and 293 in the three preceding weeks. These hospitals also contained on Saturday last 1030 cases of diphtheria, 209 of whooping-cough, 178 of enteric fever, and 82 of measles, but not one of small-pox. The 1335 deaths from all causes in London last week were 34 in excess of the number in the previous week, and included 210 which were referred to diseases of the respiratory system, against numbers steadily increasing from 73 to 172 in the six preceding weeks. The deaths attributed to different forms of violence in the 77 towns, which had been 134 and 156 in the two preceding weeks, further rose to 170 last week, and 369 inquest cases were registered. The causes of 43, or 0·9 per cent., of the deaths registered in the 77 towns during the week under notice were not certified either by a registered medical practitioner or by a coroner after inquest. All the causes of death were duly certified last week in Manchester, Sheffield, Bristol, West Ham, Bradford, Hull, Newcastle-on-Tyne, Portsmouth, and in 50 other smaller towns. The 43 uncertified causes of death last week included 11 in Liverpool, 7 in Birmingham, and 3 in South Shields.

HEALTH OF SCOTCH TOWNS.

In eight of the principal Scotch towns, having an estimated

population of 1,710,291 persons in the middle of this year, 829 births and 538 deaths were registered during the week ending Oct. 14th. The annual rate of mortality in these towns, which had been 16·7, 15·2, and 14·9 per 1000 in the three preceding weeks, rose to 16·4 in the week under notice. During the 13 weeks of the third quarter of this year the annual death-rate in these towns averaged 15·2 per 1000, and was 1·4 per 1000 below the mean rate recorded during the same period in the 77 large English towns. The annual death-rates in the Scotch towns last week ranged from 10·2 and 11·2 in Perth and in Aberdeen to 16·1 in Dundee and 18·7 in Glasgow. The 538 deaths from all causes in the eight towns were 48 in excess of the number in the previous week, and included 74 which were referred to the principal epidemic diseases, against numbers decreasing from 134 to 60 in the six preceding weeks; of these 74 deaths, 41 resulted from diarrhœa, 12 from diphtheria, 8 from scarlet fever, 7 from whooping-cough, 5 from measles, and 1 from enteric fever, but not one from small-pox. The mean annual death-rate from these epidemic diseases in the eight towns last week was equal to 2·3 per 1000, and was 0·6 above the mean death-rate from the same diseases in the 77 large English towns. The deaths attributed to diarrhœal diseases, which had steadily fallen from 113 to 33 in the six preceding weeks, rose to 41 last week, and included 37 of infants under two years of age; 24 deaths were recorded in Glasgow, 7 in Dundee, and 4 in Edinburgh. The deaths referred to diphtheria numbered 12, and were equal to the average in the two preceding weeks; 8 deaths occurred in Glasgow and 2 in Dundee. The fatal cases of scarlet fever, which had been 5, 3, and 8 in the three preceding weeks, were again 8 last week, and comprised 5 in Glasgow, 2 in Paisley, and 1 in Dundee. The deaths attributed to whooping-cough, which had declined from 12 to 3 in the three preceding weeks, rose to 7 last week, of which 6 were registered in Glasgow. The 5 fatal cases of measles were 1 in excess of the number in the previous week, and comprised 4 in Glasgow and 1 in Leith. The death from enteric fever was recorded in Glasgow. The deaths referred to diseases of the respiratory system, which had steadily risen from 41 to 78 in the four preceding weeks, further increased to 80 last week, and were 11 in excess of the number in the corresponding week of last year. Of the 538 deaths from all causes in the eight towns last week, 180, or 33 per cent., were recorded in public institutions, and 23 deaths were attributed to different forms of violence. The causes of 20, or 3·7 per cent., of the deaths in the eight towns last week were not specified or not certified; in the 77 English towns the proportion of uncertified causes last week did not exceed 0·9 per cent.

HEALTH OF IRISH TOWNS.

In the 22 town districts of Ireland, having an estimated population of 1,149,495 persons in the middle of this year, 584 births and 425 deaths were registered during the week ending Oct. 14th. The annual rate of mortality in these towns, which had been 18·0 and 19·6 per 1000 in the two preceding weeks, declined to 19·3 per 1000 in the week under notice. During the 13 weeks of the third quarter of this year the annual death-rate in these Irish towns averaged 18·3 per 1000; in the 77 English towns during the same period the mean annual death-rate was equal to 16·6, whilst in the eight Scotch towns it did not exceed 15·2 per 1000. The annual death-rate last week was equal to 21·7 in Dublin (against 15·4 in London), 15·9 in Belfast, 25·2 in Cork, 15·3 in Londonderry, 16·3 in Limerick, and 26·6 in Waterford; whilst in the 16 smallest of these Irish towns the mean annual death-rate was equal to 19·0 per 1000. The 425 deaths from all causes in the 22 Irish towns were 6 fewer than the number returned in the previous week, and included 74 which were referred to the principal epidemic diseases, against numbers decreasing from 153 to 81 in the six preceding weeks; of these 74 deaths, 58 resulted from diarrhœa, 5 from enteric fever, 5 from diphtheria, 3 from whooping-cough, 2 from scarlet fever, and 1 from measles, but not one from small-pox. These 74 deaths from the principal epidemic diseases were equal to an annual death-rate of 3·4 per 1000. The mean rate from the same diseases in the 77 English towns last week was equal to 1·7, while in the eight Scotch towns it averaged 2·3 per 1000. The deaths attributed to diarrhœal diseases, which had decreased from 121 to 71 in the four preceding weeks, further declined to 58 last week, and included 54 of infants under two years of age; 28 deaths were recorded in Dublin, 13 in Belfast, 4 in Londonderry, and 3 in Waterford. Of the 5 fatal cases of enteric fever, which were equal to the average in the two preceding weeks, 4 were registered in Dublin and 1 in Cork. The deaths referred to diphtheria numbered 5, against an average of 2 during the seven preceding weeks; 4 deaths occurred in Dublin and 1 in Belfast. The 3 deaths from whooping-cough were slightly in excess of recent weekly numbers, and comprised 2 in Belfast and 1 in Dublin. The 2 fatal cases of scarlet fever occurred in Dublin and Belfast respectively, and that from measles in Dublin. The deaths referred to diseases of the respiratory system in the 22 town districts, which had been 42 and 64 in the two preceding weeks, declined to 50 last week. Of the 425 deaths from all causes in the Irish towns last week, 141, or 33 per cent., were recorded in public institutions, and 10 deaths were attributed to different forms of violence. The causes of 21, or 4·9 per cent., of the deaths registered in the 22 towns last week were not certified either by a registered medical practitioner or by a coroner after inquest; the proportion of uncertified causes in the week under notice did not exceed 0·9 per cent. in the 77 large English towns, and was equal to 3·7 per cent. in the eight Scotch towns.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

IN accordance with the provisions of Order in Council of April 1st, 1881, Fleet-Surgeon Jeremiah Sugrue has been placed on the Retired List (dated Oct. 9th, 1911).

Fleet-Surgeon William Wenmoth Pryn has been promoted to the rank of Deputy Surgeon-General in His Majesty's Fleet (dated Oct. 12th, 1911).

The undermentioned Acting Surgeons have been confirmed in the rank of Surgeon in His Majesty's fleet:—Roger Aiken Rankine, Vernon Lickfold Matthews, Adrian Charles Paterson, William Lewis Cowardin, Quintin Hume Richardson, Herbert White, and Leonard Alexander Moncrieff (dated May 19th, 1911).

The following appointments have been notified:—Staff-Surgeons: W. H. Pope to the *Sapphire*, on recommissioning; and H. J. Chater, to the *Attentive*, on commissioning. Surgeon: G. Carlisle to the *Vernon*, additional, for the *Furious*.

ROYAL ARMY MEDICAL CORPS.

Colonel F. H. Treherne, on vacating medical charge of the Cambridge Hospital at Aldershot on promotion, has embarked for a tour of service in India to take up the appointment of Administrative Medical Officer of the Allahabad Brigade. Lieutenant-Colonel (local Colonel) H. B. Matthias, Principal Medical Officer of the Egyptian Army, has arrived home on leave of absence from Khartoum. Lieutenant-Colonel H. Cocks, from the Royal Herbert Hospital at Woolwich, has taken up duty at the Military Hospital, Shorncliffe. Lieutenant-Colonel S. G. Allen, commanding the 28th Company, Royal Army Medical Corps, and in charge of the Military Hospital at Gibraltar, has arrived home on leave of absence. His Majesty the King has been graciously pleased to sanction the promotion of Surgeon-Lieutenant-Colonel Sir W. R. Crooke-Lawless, C.I.E., as a Knight of Grace in the Order of the Hospital of St. John of Jerusalem in England. Lieutenant-Colonel M. J. Sexton, at present holding medical charge of the Military Hospital at Arbor Hill, Dublin, has been placed under orders by the War Office to proceed to South Africa for a tour of service during the ensuing trooping season. Lieutenant-Colonel R. W. Wright has embarked for a tour of duty in India. Major M. P. Corkery, in medical charge of the Lawrence School and residency surgeon at Mount Abu, Bombay Command, has been granted leave of absence home from India for eight months. Major E. C. Anderson, D.S.O., from Rawal Pindi, has taken up duty at the Station Hospital, Karachi. Major P. H. Collingwood has been transferred from Exeter to Devonport. Major H. E. Staddon, from Chichester, has been appointed to the Military Hospital at Shorncliffe. Major C. A. Stone has

joined at Parkhurst Military Hospital and taken over charge from Lieutenant-Colonel J. F. Donegan, appointed Recruiting Medical Officer at Woolwich. Major F. W. Bebie, commandant of the Royal Army Medical Corps School of Instruction at Salisbury Plain, has taken up duty at the Military Hospital, Colchester, on the termination of field training. Major J. S. Gallie has been transferred to the home establishment from India. Major M. H. G. Fell, sanitary specialist at Cairo, has arrived home on leave of absence. Major T. H. J. C. Goodwin, D.S.O., at present serving at Aden, has been granted three months' general leave. Captain F. W. Dawson, attached to the Royal Infirmary, Phœnix Park, Dublin, has been placed under orders to embark for India about Nov. 10th for service with the Northern Army. Captain H. C. Hildreth, in charge of the military hospital at Glen of Imaal, has been granted leave of absence preparatory to joining the Royal Army Medical College, London, for the promotion course for captains commencing on Nov. 1st next. Captain G. Baillie, on the termination of leave granted for duty on the West Coast of Africa, has been appointed to the London District temporarily, pending embarkation. Captain E. M. Pennefather has been transferred from the Dublin District to the Cork District. Captain S. Boglan-Smith has taken up the appointment of Specialist Sanitary Officer in the Belfast District. Captain E. P. Lauder, from Aldershot, has been appointed to the Cork District. Captain W. S. Crosthwait, on relinquishing medical charge of the troops at Moore Park Camp, has been detailed for duty at Fermoy. Captain W. J. Thompson, from Lucknow, has been appointed to the station hospital at Cawnpore for duty. Captain V. C. Honeybourne has arrived home on leave of absence from India. An exchange of positions on the roster for service abroad has been sanctioned by the Director-General of the Army Medical Service between Captain A. R. Greenwood, specialist in advanced operative surgery, serving at Aldershot, and Captain H. T. Stack, doing duty at the Military Hospital, Londonderry. Lieutenant W. H. O'Riordan has joined at York from Whitley Bay. Lieutenant O. W. McSheehy, on the closing of Willsworthy Camp, has been posted to Okehampton. Lieutenant R. C. Priest, in medical charge of the staff and military families at Colchester, has been granted leave of absence from Oct. 31st to Nov. 28th next, pending embarkation for a tour of service in India.

INDIAN MEDICAL SERVICE.

Lieutenant-Colonel P. J. Lumsden, agency surgeon, Bengal Presidency, has been granted seven months' leave of absence home from India. Lieutenant-Colonel R. B. Roe has been transferred from the appointment of principal medical officer of the Allahabad Brigade to be Principal Medical Officer of Karachi Brigade. Lieutenant-Colonel C. H. Bedford, Bengal Presidency, has been granted six months' leave of absence from India by the Home Department. Lieutenant-Colonel J. R. Adie has taken up duty as Chief Medical Officer in Charge of Malarial Fever Prevention in the Punjab. Lieutenant-Colonel M. A. Ker has been transferred to the medical charge of the 2nd Gurkha Rifles in succession to Lieutenant-Colonel C. E. L. Gilbert appointed to the medical charge of the 26th Punjabis. Major A. E. Berry has been selected for appointment by H. E. the Commander-in-Chief in India as Specialist in Ophthalmology to the Fifth (Mhow) Division of the Southern Army. Major B. R. Chatterton, civil surgeon of Muzaffarpur, has arrived home on leave of absence. Major V. H. Roberts has taken up duty as District Plague Medical Officer of Rohtak District. Major R. G. Turner, civil surgeon of Gonda, has been granted privilege leave combined with furlough up to Jan. 14th next. H. E. the Governor of Bombay in Council has been pleased to appoint Major S. C. Evans to be Professor of Midwifery at the Grant Medical College, Bombay, and to hold medical charge of the Bai Motlibai and Sir D. M. Petit Hospitals. Captain G. A. Jolly has been appointed to officiate as Civil Surgeon of Mainpuri. The services of Captain R. T. Wells have been placed at the disposal of the Home Department. Captain C. A. Sprawson has been granted an extension of his leave of absence by the Secretary of State for India. Captain F. P. Mackie has been selected to officiate as Civil Surgeon of Bijnor. The services of Captain E. P. Mackie have been placed at the disposal of the Home Department. H.E. the Commander-in-Chief in India has appointed Captain G. C. L. Kerans to be Specialist in Ophthalmology to the Eighth (Lucknow) Division. Captain C. A. Gourlay, civil surgeon of Kamrup, has been permitted leave of absence home from India for 18 months. Captain W. S. Nealor has been appointed Civil Surgeon of Ahmednagar in succession to Captain A. Murphy. Captain C. J. Brierley, Bengal Presidency, has been granted six months' extension of his leave of absence by the Secretary of State for India. Major W. S. Willmore, civil surgeon of Mirzapur, has been deputed to the Central Research Institute at Kasauli for a course of instruction in clinical bacteriology. The services of Captain J. H. Horton, D.S.O., have been placed temporarily at the disposal of the Government of Bombay. Captain J. G. G. Swan, Bengal Presidency, has returned to India on the expiration of his leave of absence. Lieutenant E. H. V. Hodge has been appointed to the officiating Medical Charge of the 26th Punjabis.

TERRITORIAL FORCE.

Royal Army Medical Corps.

Eastern Mounted Brigade Field Ambulance: Lieutenant Oliver Smithson resigns his commission (dated Oct. 11th, 1911).

5th London Field Ambulance: John Pomeroy Grainger to be Lieutenant (dated Sept. 23rd, 1911).

3rd North Midland Field Ambulance: Major Howard H. C. Dent to be Lieutenant-Colonel (dated Sept. 5th, 1911).

1st Welsh Field Ambulance: Lieutenant John O'Sullivan to be Captain (dated June 19th, 1911).

Attached to Units other than Medical Units.—Captain George H. Goldsmith resigns his commission (dated Oct. 11th, 1911).

For attachment to Units other than Medical Units.—Surgeon-Captain William Reginald Eyton Williams, from the 4th Battalion, The Welsh Regiment, to be Captain (dated Oct. 11th, 1911).

THE TERRITORIAL DECORATION.

The King has conferred the Territorial Decoration upon the undermentioned officers of the Territorial Force:—

Royal Army Medical Corps.—Lieutenant-Colonel Archibald Kerr Chalmers, Sanitary Officer of the Lowland Territorial Division; Major Robert Rannie, attached to the 7th (Deeside Highland) Battalion, The Gordon Highlanders; Major Walter Alexander Atkinson, attached to the 21st (County of London) Battalion, The London Regiment (First Surrey Rifles); Major Walter Moffett Hamilton, attached to the 7th Battalion, The Lancashire Fusiliers; Major Charles Thomas Griffiths (Retired List); Captain Robert Thomson Ferguson (Retired List).

VOLUNTEER OFFICERS' DECORATION.

The King has conferred the Volunteer Officers' Decoration upon the undermentioned officer of the Territorial Force who has been duly recommended for the same under the terms of the Royal Warrant, dated July 25th, 1892:—

Royal Army Medical Corps.—Lieutenant-Colonel G. Sims Woodhead, Sanitary Service.

PRIZE DISTRIBUTION AT HASLAR HOSPITAL.

The course of instruction of the newly entered Acting Surgeons at Haslar was brought to a close on Oct. 10th. The prizes were distributed by Admiral Sir Arthur W. Moore, Commander-in-Chief. The gold medal was gained by Acting Surgeon V. L. Matthews of the London Hospital. The silver medal was awarded to Acting Surgeon R. A. Rankine of Guy's Hospital. Three Navy Regulation Pocket-cases—prizes for subjects in which instruction is given at Haslar—were awarded to Acting Surgeons R. A. Rankine, V. L. Matthews, and W. L. Cowardin. The following list shows the places gained by the combined marks of the London and Haslar examinations:—

		Marks.
Acting Surgeon	V. L. Matthews...	3716
,,	R. A. Rankine	3660
,,	Q. H. Richardson	3306
,,	W. L. Cowardin	3263
,,	H. White	3222
,,	L. A. Moncrieff...	3207
,,	A. C. Paterson	3154

The above gentlemen have now been confirmed in the rank of Surgeon, as stated in a foregoing paragraph.

HEALTH OF THE NAVY.

The annual report of the health of the Navy for 1910 has

just been issued as a Parliamentary paper. We hope in an early issue of THE LANCET to deal fully with this report, which shows a continuous improvement in the general health of the fleet as compared with the preceding five years.

THE NAVAL MEDICAL SUPPLEMENTAL FUND.

At the quarterly meeting of the directors of the Naval Medical Supplemental Fund, held on Oct. 10th, Sir W. Graham Greene, K.C.B., in the chair, the sum of £40 was distributed among the several applicants.

A complimentary dinner was given on Oct. 11th at the Grand Hotel, Trafalgar-square, London, to Captain F. M. Parry, R.A.M.C., late Adjutant Royal Army Medical Corps School of Instruction, Home Counties Division, by the officers of Territorial Royal Army Medical Corps Units in the Division. The chair was occupied by Colonel J. Turton, V.D.

Correspondence.

"Audi alteram partem."

THE ELECTION OF DIRECT REPRESENTATIVES ON THE GENERAL MEDICAL COUNCIL.

To the Editor of THE LANCET.

SIR,—Having after more than 35 years' residence in London as a general practitioner found it necessary to seek more healthful climatic conditions in my native county I had hoped to retire from public work, but in view of the Government Insurance Bill which so grossly attacks the rights and interests of general practitioners I have decided, at the request of numerous medical friends and supporters at former elections, to again offer myself as a candidate for a seat on the General Medical Council.

Another reason which has influenced me to accept nomination is that I think it most important to enter a protest against the attempt of the executive of the Association to capture all the seats reserved for Direct Representatives for England and Wales. If the Council and officials are permitted to use the financial and other resources of the Association in furthering the election of their nominees and to defeat other well-known members of the Association who for many years have borne the burden and heat of the day in the cause of medical reform—as was done at the last election, when my friend and former colleague on the General Medical Council, Mr. George Jackson, was defeated in his attempt to regain the seat he had so ably filled for five years—the independent candidate will be crushed out, freedom of choice on the part of the electors will no longer exist, and Direct Representation will be reduced to a silly burlesque.

I hope to have an early opportunity of presenting my views on current medical politics before the electors. Meantime I thank you in anticipation for your courtesy in publishing this communication.

I am, Sir, yours faithfully,
GEORGE BROWN,
Late Direct Representative for England and Wales on the General Medical Council.
Callington, Cornwall, Oct. 16th, 1911.

To the Editor of THE LANCET.

SIR,—As I have so recently been a candidate for election as a Direct Representative, when I polled within 200 votes of the successful candidate, I feel that any lengthy address is unnecessary now.

Having previously served on the Council from 1902 to 1907 I am thoroughly acquainted with the duties of the office, during which time I was a member of various important committees. One of the most important in my opinion amongst many matters requiring attention is that more stringent regulations should be adopted with regard to unqualified practice and quacks generally.

Any Act of Parliament which may be passed should contain a clause forbidding any colourable pretence being made of being a physician or surgeon. The necessity of some tangible return to the principle of modified pupillage is one which I have formerly urged on the Council, and should do so again. The necessity of more time being given to the purely professional side of the students' studies by allowing the scientific subjects to be taken elsewhere before entrance at the medical schools is an urgent one.

Having been the representative of my division (Plymouth) since the commencement of the representative meetings, I am well acquainted with the views of the British Medical Association with regard to the State Insurance Bill, and shall be prepared to support them if elected to the General Medical Council.

I am, Sir, yours faithfully,
GEORGE JACKSON, F.R.C.S. Eng.,
Late President, now Vice-President, South-Western Branch B.M. Association, Late Member of Medico-Political and other Central Committees of the Association.
Plymouth, Oct. 16th, 1911.

To the Editor of THE LANCET.

SIR,—With your permission, and in answer to several letters and inquiries I have received, I should like to state, through the medium of your columns, that I shall again be a candidate for one of the vacant seats on the General Medical Council.

I think the profession should have the opportunity of expressing its agreement or otherwise with the attempt which is now being made by the British Medical Association to monopolise the direct representation for those favoured by the council of the Association. I think the general body of members of the Association cannot quite realise the unfairness of the scheme under which their three candidates are now being put forward, and if the profession is foolish enough to ratify this scheme by returning the Association nominees, direct representation in England and Wales will be nothing less than a mockery.

I am, Sir, yours faithfully,
Leeds, Oct. 16th, 1911. ARTHUR HAWKYARD.

To the Editor of THE LANCET.

SIR,—I am joining Dr. George Brown and Dr. Hawkyard as candidates for the three vacancies on the General Medical Council. Our address will be published next week.

I am, Sir, yours faithfully,
Lower Edmonton, Oct. 18th, 1911. SIDNEY C. LAWRENCE.

CONDITIONS OF PRACTICE IN SOUTH AMERICA.

To the Editor of THE LANCET.

SIR,—In the issue of THE LANCET of August 26th, p. 657, appears an article on the conditions of medical practice in various countries of the world. In dealing with practice in the Argentine Republic the writer states that an examination in the Spanish language must be passed, and certain fees paid, before a foreign doctor is entitled to practise. This statement is certainly true, but is hardly calculated to give an accurate idea of conditions of practice in this country.

A foreign medical man is required to take the same course as the Argentine medical student, and as this course occupies seven years and includes some 30 examination it is not an undertaking which can be lightly embarked upon. It is true that a foreign practitioner is permitted to compress his examinations into a shorter period than seven years, but he cannot obtain exemption from any of the examinations. So many medical men have come out to this country under the impression that they can obtain permission to practise their profession without much difficulty that I think it advisable to make this statement of the true condition of affairs. Especially do I think this to be advisable after reading the somewhat incomplete statement in the article referred to.

Under the heading of "Brazil, South America," it is stated that in this country "the consent of the faculty of medicine and pharmacy must be obtained and certain small fees paid" before practice is permitted. This does not create a true impression of the state of affairs in that country. I understand from information obtained from medical men practising in Brazil that the difficulties put in the way of foreign practice are, if anything, greater than those existent in the Argentine. During the last few years very few foreign medical men have succeeded in establishing themselves in Brazil, and every discouragement is offered to those who attempt to do so.

The large number of qualified medical men turned out by the Universities of Rio de Janeiro and of Buenos Aires will not tend in the future to the lowering of demands made upon foreign doctors settling in South America. Although British medical men will always be courteously received, at any rate at the University of Buenos Aires, the demands made upon them will probably be even more exacting in the future than they are at the present moment. The Argentine Faculty of Medicine has learned the necessity of preventing the excessive immigration of foreign doctors, and one can hardly complain of the measure it has adopted in order to protect its own native practitioners.

I am, Sir, yours faithfully,

K. MACFARLANE WALKER, F.R.C.S. Eng.

Buenos Aires, Sept. 18th, 1911.

ANOTHER WAY OF DEALING WITH DEGENERATES.

To the Editor of THE LANCET.

SIR,—Will you allow me to offer for the consideration of your readers a few facts in support of my assertion, which Dr. Ewart has done me the honour to quote, that weakness of will, in proper circumstances, makes for morality and happiness. It is now about 13 years since I first began to call attention on every occasion to the evil we were permitting in leaving the feeble-minded at large and at liberty to propagate their species. I have tried to show that our very tenderness for the weak and suffering has, by its interference with the laws of natural selection, increased this evil, since we are keeping alive all weaklings whom by any means we can keep alive. At the same time I was anxious to show that there were legitimate and practical methods of dealing with the feeble-minded. Our colony at Sandlebridge has succeeded, not beyond our hopes, but beyond the expectation of those who have watched our experiment. Building on the weakness of will which is common to all feeble-minded people we laid our plans accordingly; we said that we would admit only children under the age of 13, and that we would make them so happy, we would so train them, that they should never leave us. The feeble-minded have, as a rule, no ideas except those that are suggested to them; we have suggested to them unceasingly the idea that they are at home and that if they will behave themselves they shall never be turned out. For the results we have now in our colony 232 boys and girls. These are what remain out of 284 admitted during ten years. Of the 52 not now with us, some were probation cases and were discharged after a few weeks' residence as too idiotic or too severely invalided to be suitable cases for us; a few have become insane and have been transferred to asylums; 6 have died; the remainder, 13 in number, represent our failures; they are young men and women who have been persuaded by bad parents to leave us after they had been trained. A very slight alteration in the law would give us powers to withstand such parents as these. Of those now with us, 74 are between the ages of 16 and 23. Of course, more of them are young men than young women; there are so many more boys than girls of this type. They are still simple, good children; subject, as are all children, to outbreaks of temper at times, but generally proving, by their behaviour and their contented happiness, that our method of dealing with them is, in itself, quite sufficient and efficient. We have an able doctor who looks after their health; we pay great attention to their diet and to all points of behaviour and manners. Our lads are engaged in farm and garden work; or they are busy with the carpenter or the plumber; or they are trained to be house-boys, and to do in the boys' houses what the girls do in the girls' houses. Our girls are busied with sewing, knitting, house and laundry work. From the moment we take them into the school for little children, we keep in view three essential considerations: our children must be good and happy; they must be permanently detained that they may never themselves have children; they must be so trained as to reach their greatest possible industrial value. I think anyone who will take the trouble personally to consider our work will realise that we are achieving our aims. I think it would also be admitted, by anyone visiting us, that no other means are necessary for the safeguarding of the national health than an extension of those we have adopted.

I am, Sir, yours faithfully,

Manchester, Oct. 11th, 1911. MARY DENDY.

THE RELATION OF THE ORGANIC PHOSPHORUS CONTENT OF VARIOUS DIETS TO DISEASES OF NUTRITION, PARTICULARLY BERI-BERI.

To the Editor of THE LANCET.

SIR,—In an annotation with the above title contained in your issue of the 14th inst. it is stated that "the disease, as it occurs in the Far East, is now generally recognised to be due to a dietary of white rice from which the pericarp of the grain has been removed in the process of 'polishing' or milling (the pericarp containing the bulk of the phosphates and other salts)." I venture to think that this statement requires modification, for it can only be explained on the assumption that the writer is not acquainted with the published works on "The Etiology of Beri-beri," by Dr. A. T. Stanton and myself, and with the botanical structure of the fruit (a caryopsis) of the rice plant. Eijkman originally stated that removal of the pericarp from the rice-grain rendered the product harmful, and believed that the pericarp contained an antidote to a poison contained in the grain. Schaumann copied this statement so far as the pericarp is concerned, but believed that its removal deprived the grain of organic phosphorus compounds. Simpson and Edie have copied Schaumann's statement, hence its appearance in THE LANCET.

The pericarp is a thin, cellular, protective structure, the removal of which does not in any way impair the nutritive value of the grain, and the pericarp does not contain the bulk of the phosphates and other salts. Parboiled rice which has been "pearled" once is free from pericarp, and, cooked in the ordinary way, can never produce beri-beri. The layers subjacent to the pericarp (the sub-pericarpal layers) are the important ones, and it is the retention of these layers which is essential for the prevention of beri-beri among peoples whose staple of diet is rice.

The plates published in 1911 in the report, entitled "The Etiology of Beri-beri" (No. 12 of the Studies from the Institute for Medical Research, Kuala Lumpur, F.M.S.), and which were drawn from actual sections, show clearly the retention of the important subpericarpal layers in an unpolished (harmless) rice and their absence from a polished (harmful) rice. In addition, the plates show that the contents of the cells in the subpericarpal layers differ from those of the other cells of the endosperm.

In direct proportion to the extent to which the subpericarpal layers are removed in the process of polishing is the phosphorus-content of the grain diminished, and so likewise is the content in respect of other substances, such as proteins, fats, and salts. The phosphorus-content serves, therefore, as an indicator of the extent to which rice has been polished, and this is all we have ever claimed for it. The quantitative estimation of any of the other constituents of the grain might serve this purpose equally well, but estimations of proteins, fats, and ash would not be satisfactory for reasons stated in our report.

The beri-beri producing power of a rice when consumed as the staple of diet is in inverse proportion to its phosphorus-content and in direct proportion to the extent to which it has been polished, but there is no evidence to show that white rice is harmful because of a diminished phosphorus-content. On p. 56 of "The Etiology of Beri-beri" we mention the case of a parboiled rice which after extraction with 94 per cent. alcohol was proved harmful; the phosphorus-content of this rice before and after extraction differed only to an extent compatible with the range of experimental error. The other experimental evidence, which we have stated in detail, proves that a deficiency of organic phosphorus compounds is not the cause of beri-beri.

We have dealt at length with some of the errors into which Dr. Schaumann has fallen; he has certainly produced no evidence, experimental or otherwise, to justify his conclusion that tropical beri-beri is due to deficiency of organic phosphorus compounds in the diet. Dr. Simpson and Mr. Edie have translated and abstracted Dr. Schaumann's book; their own experiments add nothing new to our knowledge of the subject.

The present problem is one for solution by a physiological chemist who shall isolate and identify the substance of high physiological importance contained in the subpericarpal layers. He will find a substance, which

is not a protein, which will not contain phosphorus, and the presence of which in extremely small amounts is necessary for the prevention of beri-beri. The etiology of other diseases may or may not be explained on a basis similar to that which explains the etiology of beri-beri, but in the present state of our knowledge wide-sweeping statements such as have been made are to be deprecated. Certain facts have been determined; apply these facts and true or tropical beri-beri must cease to exist. Other facts can now be determined, and until that work has been accomplished no conclusions other than those we have arrived at are possible or permissible. I am, Sir, yours faithfully,

H. FRASER,
Director, Institute for Medical Research,
Oct. 16th, 1911. Kuala Lumpur, F.M.S.

THE NATIONAL INSURANCE BILL.

To the Editor of THE LANCET.

SIR,—In the letter of your correspondent, Mr. Albert Benthall, there occurs this passage: "The suggestion of payment by fee for each attendance is a delightful dream, but purely Utopian and out of the range of practical politics, as it would land the Insurance Fund in bankruptcy in the first year." I would earnestly ask the profession to consider what this means. It is that the Bill does not provide money enough to pay medical men for the work it imposes upon them. The "magnificence" of this Bill would appear to consist in vicarious charity at the expense of the medical profession. I am, Sir, yours faithfully,

ALFRED E. A. LOOSELY.
New Cavendish-street, W., Oct. 15th, 1911.

To the Editor of THE LANCET.

SIR,—The question cropped up at a meeting of our medical society, viz., in the event of the Insurance Bill passing into law how much are we as practitioners going to charge for attendance on wife and family? A suggestion was put forward that 5*s.* per member per annum was a reasonable figure. What do other practitioners or other societies think—Should not mileage be considered? We must be prepared.—I am, Sir, yours faithfully,

T. L. ASHFORTH.
Woodlands, near Doncaster, Oct. 12th, 1911.

STRANGULATION WITHOUT VOMITING AND GENERAL PERITONITIS FOLLOWING PARESIS OF THE GUT.

To the Editor of THE LANCET.

SIR,—In your issue dated Sept. 23rd you commented on the absence of vomiting during strangulation. You mentioned that Sir James Paget regarded vomiting as one of the most constant symptoms, while another eminent authority, not so dogmatic, assigned it as being almost constant. In view of this conflicting testimony, the history of the following case, under the care of Mr. Jalland in the York County Hospital, may be of interest.

The patient was a male, aged 54. On admission his condition was good; temperature normal; pulse slow and full, having a frequency of 60; respirations numbered 20 to the minute. The patient complained of pain in the left inguinal region and showed tenderness over a swelling in that locality; in fact, a left femoral hernia presented. He maintained that the lump was always there; in any case it was absolutely irreducible, stony hard, with absence of impulse on coughing, and dulness on percussion. The bowels had acted during the morning, and with an enema a good result was obtained, together with flatus, the important item being that at no time had the patient vomited, though he stated he had a tendency to retch. The doctor who attended the patient prior to admission stated that the hernia was always reducible, and in view of this I cut into the swelling only to find a strangulated piece of gut with a fair amount of serous fluid in the sac. These facts show clearly that strangulation can exist without any history of vomiting; in fact, immediate operation was prompted by the reducible becoming irreducible.

Now this is only the initial stage of this unfortunate case. To continue. The strangulated bowel, having been washed in hot saline solution and marked with a small catgut stitch in the serous coat, was returned into the abdomen and a radical cure performed. After this, the patient's condition improved—e.g., he lost the tendency to retch, passed flatus, and felt fairly comfortable for at least 12 hours. This was followed by pain and tenderness in the left hypochondriac and lumbar regions. These increased both in severity and amplitude, and soon the whole abdomen became rigid; at the same time the patient acquired that pinched look so characteristic of peritonitis. It is worthy of note to state that the pulse had not altered, still maintaining its full character; and, indeed, it is notorious that in some cases of general peritonitis following a gangrenous appendix, you have the same class of pulse—one of almost normal frequency and good volume—probably due to a reflex inhibition of the heart or to direct stimulation of the vagi by the toxins circulating in the system. This stimulation is probably succeeded by paralysis, thus accounting for the running character that the pulse assumes before death.

To continue. Prompted by the foregoing considerations a laparotomy was performed 28 hours after the first operation and general peritonitis was discovered. However, the returned strangulated portion was absolutely indistinguishable from the rest of the gut. The whole gut was distended with gas, due no doubt to paresis following either the anæsthetic or an injured intestine; and in spite of all that was done, *mors* took place within two days.

The chain of events in this case is no doubt open to controversy, but this much is certain—that strangulation may exist without vomiting. The general peritonitis can only be explained by the transudate of pyogenic organisms through a paralysed gut.—I am, Sir, yours faithfully,

S. F. A. CHARLES, M.D.,
York, Oct. 9th, 1911. House Surgeon, County Hospital, York.

THE VIABILITY OF HUMAN CARCINOMA IN ANIMALS.

To the Editor of THE LANCET.

SIR,—In connexion with this question and in reference to the recent paper in your columns by Major C. L. Williams, I.M.S.,[1] may I mention that I was able, as shown in a similar series of experiments published in 1908,[2] to find mitoses after 16 days and well-preserved cells after seven weeks in pieces implanted into monkeys and mitoses after five days even in the frog. I think, as there stated, that there is much difference in the vitality of different tumours, or even parts of tumours, when transplanted into alien soil.

I am, Sir, yours faithfully,

A. S. GRÜNBAUM.
University of Leeds School of Medicine, Oct. 13th, 1911.

NOTE ON TWO CASES OF TUMOUR OF THE PREFRONTAL LOBE IN CRIMINALS.

To the Editor of THE LANCET.

SIR,—In regard to Dr. Tait's queries regarding the cases of prefrontal tumour published by me in THE LANCET of Oct. 7th, I find from my notes that the first patient was right-handed; I am not sure about the second. In the first case a small area of the cortex of the inferior frontal convolution about the anterior limb of the fissure of Sylvius appeared to the naked eye to be normal (it was not, however, examined histologically). The absence of aphasic symptoms would thus fit in very well with the apparent escape of the motor speech-centre.

I am, Sir, yours faithfully,

H.M. Prison, Holloway, Oct. 14th, 1911. W. C. SULLIVAN.

THE NOMENCLATURE OF SPINAL DEFORMITIES.

To the Editor of THE LANCET.

SIR,—Mr. Kellett Smith's letter unfortunately only adds to the confusion.

1. He states that a lateral curvature passes through three distinct stages, and then insists that the first of these three distinct stages must not be called scoliosis. One of the

[1] THE LANCET, vol. ii., 1911, p. 938.
[2] Journal of Pathology, vol. xii., p. 130.

objects of my letter was to emphasise the fact that the terms "lateral curvature" and "scoliosis" are synonymous.

2. He states that in the first stage the spine assumes a lateral curve without any rotation, and he applies to this variety of lateral curvature, which, he says, must not be called scoliosis, the term "lateral deviation"; yet as Lovett[1] has shown, lateral deviation never takes place without rotation, and W. Adams[2] even held that in lateral curvature the rotation takes place first and the lateral deviation afterwards.

3. He states that in the second stage, although the spine may be to some extent straightened out by posture, some of the deformity still remains owing to *bony displacement being maintained by muscular and ligamentous shortening*. But by the time there is any deformity that cannot be made to disappear by posture, the vertebræ and intervertebral discs have become wedge-shaped, and the plane of the superior and inferior articular processes altered in direction.

And finally, at the beginning of his letter Mr. Kellett Smith states that his three stages are distinct, and at the end of it, that they pass imperceptibly one into the other.

Now, Sir, what the practitioner wants to know, is whether there is bony deformity or not. If there is no bony deformity, then with plenty of fresh air and out-door exercise, with attention to posture and dress, the patient may completely recover; but if there is any bony deformity, then the practitioner may be certain that unless a proper course of treatment be adopted, the deformity will progress. How is he to tell if there is bony deformity? By making the patient, stripped to expose the iliac crests, bend down to the ground, thus completely flexing the spine. If the practitioner then observes the "horizon" of the back from different levels—I thank Mr. Kellett Smith for that valuable metaphor—he will at once notice any bony deformity; the ribs, or the erector spinæ in the lumbar region, will project more on one side than on the other.

If there is no projection on one side more than the other then the case is one of "postural scoliosis." If there is projection the case is one of "bony scoliosis." If the projection is only just enough to be noticed at all it is described as a "trace"; if it is easily seen it is described as "moderate"; if it is so noticeable as to be obvious to the untrained eye it is described as "severe"; and the very worst cases of all are described as "extreme." These four degrees are not distinct, but clinically they serve their purpose. The division into postural and bony scoliosis is, however, absolutely distinct, and I cannot too strongly emphasise its importance.

I am, Sir, yours faithfully,

Harley-street, W., Oct. 16th, 1911. PAUL B. ROTH.

IODISED PHENOL IN CHRONIC DISCHARGING SINUSES.

To the Editor of THE LANCET.

SIR,—Every surgeon knows the difficulty of curing a chronic discharging sinus. For some years I have treated, without a single failure or recurrence, long-standing as well as recent cases by the application of iodised phenol on a probe dressed with cotton-wool—Playfair's for large sinuses, an ordinary probe for small ones. These cases range from old tubercular hip sinuses down to small abscess sacs. In one case there were seven large and deep sinuses; in another the bare femur was struck by the probe. I once treated a Bartholinian abscess by dressing the sac in this way immediately after letting out the pus, and the wound healed without further discharge and without pain. Most cases require three or four dressings at intervals of a fortnight or three weeks. Contact is continued for about five minutes.

I am, Sir, yours faithfully,

DIGBY F. B. COTES, M.R.C.S. Eng.

Burton-on-Trent, Oct. 11th, 1911.

[1] Robert W. Lovett: The Mechanism of the Normal Spine and its Relation to Scoliosis, Boston Medical and Surgical Journal, vol. clii., No. 13, pp. 349-358, Sept. 28th, 1905.

[2] W. Adams: Lectures on Curvature of the Spine, second edition, p. 90.

UNIVERSITY OF GLASGOW.—Mr. James Eric Paterson has gained the Brunton memorial prize of £10 awarded to the most distinguished graduate in medicine of the year.—The recently founded Struthers medal and prize in anatomy have been awarded to Dr. William B. M. Martin, Carnegie Fellow.

THE CORONATION DURBAR AT DELHI.

(FROM A SPECIAL CORRESPONDENT.)

Sanitation Arrangements.

IN view of the danger of epidemic disease, chiefly plague, cholera, or small-pox, occurring in and around the Delhi district during the Coronation Durbar, owing to the assembly of very large numbers of persons from different areas in India, in some of which the above diseases are constantly prevalent, and in view of the insufficiency of the ordinary civil law provisions for checking the outbreak and spread of these diseases, the following temporary regulations have been drawn up by the local government of the United Provinces under the Epidemic Diseases Act (III. of 1897). These regulations apply to the area in which the Delhi Durbar Act is in force, but do not apply within the limits of the Delhi municipality, except the civil station ward and that portion bounded by the Ridge, the Grand Trunk Road, and the Najafgarh Canal.

Administrative arrangements.—The general control of the epidemic disease operations will vest in the Coronation Durbar Committee. The district magistrate, or a magistrate of the first class deputed by him in writing, will be the Durbar executive epidemic diseases officer for the area contained within the civil ward of Delhi municipality, and the executive sanitary officer and the special magistrate for the Durbar will hold the same functions for the rest of the area to which the notification applies, subject to the control of the Durbar Committee. The Durbar Committee will appoint an executive epidemic diseases officer for every provincial camp or other suitable area, and a Durbar health officer and Durbar plague medical officer to supervise medical arrangements in connexion with epidemic diseases and plague within the whole Durbar area. The committee will also appoint a health officer for every provincial camp, under the general control of the administrative medical and sanitary officer for the Durbar. There will be one or more segregation hospitals for the Durbar area, and an observation hut or tent for the detention of suspicious cases in every central or provincial camp. No persons shall be removed to a segregation hospital without the sanction of a Durbar plague medical officer or health officer.

Sanitary precautions.—Power is given to a plague medical and health officer to order the compulsory cleansing of any house, hut, or tent which is in such an insanitary condition as to make the inmates specially liable to an attack of plague, cholera, or small-pox.

Notification of sickness and death.—Rules are laid down for the notification to the health officer of each camp of cases of sickness or death from contagious or infectious disease, or of excessive mortality among rats, and the health officer will report to the medical and sanitary administrative officer of the foreign and administrative camp.

Medical examination.—For the purpose of inquiring into suspected cases of plague, cholera, or small-pox a plague medical or health officer, or an officer not below the rank of assistant surgeon, deputed by him, is empowered to enter any place, with due precautions to safeguard as far as possible the social customs of the occupants. If possible the officer in question shall give an opportunity to the principal adult member of the family concerned to be present at the visit, and shall when possible be accompanied by the executive epidemic diseases officer of the camp. It is laid down that the inspection of women shall be conducted in accordance with the customs of the country, and no female shall be required to submit to examination by any other agency than that of a female medical officer or *dhai* (native female nurse). No compulsory corpse inspection for the purpose of discovering cases of plague, cholera, or small-pox is allowed, but the relatives of the deceased may submit a dead body to a plague medical or health officer for examination, if they wish to avoid the death being treated as due to one or other of the above diseases.

Removals to hospital and medical attendance.—In cases of plague, cholera, or small-pox, if the patient is unwilling to use a hospital, he may be removed to a suitable place where he and his attendants can be properly segregated; or if the place which the patient is occupying is suitable, segregation may be carried out there, subject to the sanction of the executive officer of the camp or area concerned. The opinion of a plague medical or health officer as to whether a place is or is

not suitable for isolation shall be final. No patient who has not a fair chance of recovery shall be removed except at the express wish of his friends. In all other cases patients may be removed compulsorily to a segregation hospital. Proper *purdah* arrangements will be maintained in removing *purdah nashin* persons to hospital and keeping them there. At least two friends may be permitted to attend on a patient. Patients will also be at liberty to employ *vaids* or *hakims* (native medical attendants) in preference to Government medical officers, and to receive visits from religious instructors, subject to the sanitary control of the plague medical or health officer.

Treatment of contacts.—Immediate attendants on a sick person are to be subject to the same isolation as a patient, and provision is made for the removal to a segregation hospital for 10 days, if a Durbar plague medical officer thinks it advisable, of all attendants on a sick person and other contacts. A daily inspection for 10 days may be substituted for segregation at the discretion of a Durbar plague medical or health officer.

Disinfection.—Powers are given to the plague medical and health officers for carrying out the disinfection of any place in which a case of plague, cholera, or small-pox has occurred or is suspected, and the disinfection and destruction of bedding, clothing, and articles of a similar nature, subject to due precaution for protecting the privacy of female members of the family concerned. Any place or any article adjacent to a place in which a case or suspected case of plague, cholera, or small-pox has occurred, and any other place or other articles in danger of infection may also be disinfected by a plague medical or health officer. If disinfection cannot be satisfactorily effected otherwise, the medical officer, with the sanction of the Durbar executive epidemic diseases officer concerned, may burn or otherwise demolish a hut or other temporary structure, and similarly he may destroy contaminated clothing or bedding.

Evacuation.—In addition to the evacuation of actually infected places, evacuation shall be compulsory also in the case of places suspected by a plague medical or health officer to be infected. Accommodation for persons so removed shall, if necessary, be supplied in suitable places. No places so evacuated shall be reoccupied without the sanction of a plague medical or health officer. All property may be removed from an evacuated place by the owner subject to disinfection. If the owner declines to remove it it will remain at his risk.

Disposal of corpses.—Rules are laid down for the burning of corpses, in cases where cremation is the custom, at the usual burning ghat or other isolated locality, and for the burial six feet deep of corpses in other cases.

Compensation.—The Durbar epidemic diseases executive officer concerned may pay compensation to any person who has sustained substantial loss or damage by reason of anything done under these regulations.

Duty of compliance.—Every person to whom an order is given by any officer empowered to act under these regulations, such order being in accordance with the regulations, is bound to obey that order.

LONDON SCHOOL OF TROPICAL MEDICINE.—The annual school dinner of the London School of Tropical Medicine was held on Oct. 17th, at Princes' Restaurant under the chairmanship of Dr. M. Cameron Blair, senior sanitary officer, Northern Nigeria. The toast of "The School" was proposed by Surgeon-General A. M. Branfoot, C.I.E., I.M.S., who paid a warm tribute to the part which was played by Mr. Chamberlain in the establishment of the institution. He referred to the progress which the school has made since its foundation 12 years ago. During this time 1238 students have passed through the school. The toast was acknowledged by the chairman and by Sir Patrick Manson, who in a humorous speech referred to the proposed extension of residential accommodation for students, and to the forthcoming issue of a Journal of the London School of Tropical Medicine. The toast of "The Guests" was proposed by Captain A. W. Clarke. Director-General Sir James Porter, in his reply, touched on the progress which has been made with the scheme for the new Naval Medical School at Greenwich, and indicated that the school would probably open in a small way early next year. "The Health of the Chairman" was proposed by Mr. James Cantlie, and was warmly received.

SOME REFLECTIONS ON THE INTERNATIONAL HYGIENE EXHIBITION AT DRESDEN.

(FROM OUR OWN CORRESPONDENT.)

THE British Government refused for many months to recognise the educational importance of the International Hygiene Exhibition. All attempts to impress on the various Ministers that a vast difference existed between this exhibition and every other exhibition yet organised fell upon deaf ears, and even the idea that a British participation might have a political significance was not entertained for one moment. In May the great organisation opened its doors in expectancy, but not even the sanguine administration had the pluck to anticipate such success as has since been achieved. Success in every direction has attended their endeavours, and we may congratulate ourselves that we share in this success.

There can be no doubt that a very strong feeling was rampant toward the end of August and during the early part of September on the subject of war. Every action of England was analysed with scrutiny, and a certain class of German citizens interpreted each sign as a further signal of hatred and unfriendly feeling of our country towards Germany. The very presence of a British pavilion at the Dresden Exhibition sufficed to counteract a fair amount of this bad feeling, not only in Saxony, but all over the empire, since Germans flocked in surprising numbers to the world's great educational effort. No more crushing denial to the rumour that England and Germany were antagonistic could be forthcoming than the fact that while France held a corner at the end of the beautiful Hercules Allee, for the first time taking part at a German exhibition since the Franco-Prussian War, Great Britain had its serious little hall guarding the entrance to the Fest Platz, and the men of science of England were constantly offering a welcome to the German people in the pavilion dedicated to the preservation of life. The administration of the exhibition recognised from the first what a gap would have been created if our country had been absent, and the warmth of the welcome on the part of the Germans to the British Committee and its representatives indicates that while political feeling may engender a bitter feeling against us as a nation, this feeling will never affect us as individuals as long as we do not give due cause.

Over five millions have paid their way through the turnstiles. These number came from near and from far, not with the idea of spending a good time in roundabouts, scenic railways, and the like, but with the intense purpose of learning something about health. The pavilions closed throughout the season at dusk, but not later than 7. During September, as the days drew in, the people were turned out of the halls, at first at 6.30, then at 6, and then at 5.30 P.M., and as the attendants cleared the pavilions the people inquired in almost despair where they could go save to the three or four pleasure halls. It was found advisable to light the popular pavilion with electricity and to keep it open until 10 in order to satisfy the public. On Sundays, when the crowds became denser than ever, the halls were so full that it was difficult to worm one's way into any of them. And yet they held firmly to their purpose and strained to see what was placed on show.

What the People Learned.

What did these masses learn? That their mission was not merely pretence or sight-seeing is proved by the fact that even when the crowd was at its height the Statistical Section was practically empty. The populace could not understand that. The Hall, "Der Mensch" (The Human Being), formed the chief attraction and the second was the Historical Section. In the former, for the first time in their lives, the uninitiated found themselves face to face with themselves. It would be too much to expect that they learned even elementary physiology, although the material exhibited was sufficient to give a clear insight into physiology of a somewhat advanced type. But the great mass saw and began to think. Simple lessons of the best way to carry out every-day problems, which are usually carried out wrongly, were driven completely home, but not all. Besides, the ordinary lesson on anatomy or physiology given to an unprepared individual

tends to leave the impression that life hangs on a thread, that the machine is so delicate, so complicated, and so much dependent on tiny arrangements, that the man dare scarcely move lest the whole machine refuses to act. Not so in "Der Mensch." The populace were able to measure the enormous power exercised by the heart 72 times in a minute, by the jaws when a nut has to be cracked, by the metabolism when a meal has been swallowed, and they learnt that all this goes on without the windows of the house breaking. They learned, too, that the body in health is far stronger than they had imagined, and they realised that each mechanism is so exact and so well planned that, granted a fairly reasonable treatment, things right themselves without much trouble. Not only were a number of the *noxæ* which might prove serious to the mechanism recognised, but above all the masses learned that the charlatan who talks mysteriously of the body and its functions knows nothing at all about it and must be dangerous. As a graphic demonstration of the dangers of quackery the Hygiene Exhibition was superb.

Next the masses learned that knowledge was possessed to a high degree in ancient times, and that this knowledge was lost in the middle ages. They saw how laborious was the work of building up again knowledge which had been scattered to the winds, and how much of the dangers and defects of our modern life are the results of our absurd habits and our ignorant ways. An open-mouthed gaze was seen repeatedly when the uneducated visitor was placed in front of the modern plant devised for the treatment of sewage, or the recent researches in illuminating, or even in the section dealing with infective diseases. Much was, no doubt, wrongly interpreted, but this is of little moment, as long as great principles were driven home.

The Exhibition and the Expert.

A different tale naturally applies to the expert, who found so much to study in his own line that days and even weeks were spent in one hall. Here was a record of all that modern investigations had revealed, while in the historical section the development of that branch of science in which he works found expression. Practical lessons were supplemented by theoretical ones, until, armed with a stack of catalogues and pamphlets, the expert left the exhibition a wiser, a wealthier, and perhaps a happier man. At times a municipality determined to employ a different method of dealing with house refuse or of disposing of the sewage. In these cases the experts were sent to study, not only what the Germans had exhibited in well-nigh perfect form, but also what each nation had to say of the various methods. A constant stream of expert visitors sought interviews with those in charge of the pavilions to inquire what the latter had to tell them, what publications were to be had on the special subject, and how further details could be acquired. School authorities compared notes, and the one set the other thinking. And so in every branch of hygiene. The seekers after truth and after human ingenuity came from every nation of the world, including England.

Our own pavilion met the same fate as the other halls in this respect. A considerable demand was made for a general account of the public health measures in our great cities. School children were among those who asked for pamphlets on general and special subjects, often without any distinct idea of what could be produced, but always with a veritable hunger for some form of knowledge. A striking observation could be made in each of the halls. While the mere man in the street wandered about, taking in what happened to present itself and what appealed to his mind as being interesting, the expert deliberately sought out exhibits bearing on his own subject, and armed with notebooks wrote pages on pages in order that nothing might be forgotten. The exhibits themselves frequently gave the impetus for further search, and then brochures, catalogues, and other publications were produced, until all the forthcoming details were found and duly catalogued in the notebook. To this he wished to add more, and so penetrating into the inner sanctum of the chief of the section, where such existed, he directed a bombardment of questions, all aimed at laying a foundation to a comprehensive knowledge of the matter in hand. Those who were unfortunate enough to be limited as far as time was concerned were compelled to satisfy themselves with headings, without details, and even in such cases the impressions would suffice to give a living colour to the subject.

Success of the Exhibition: Permanent Museum of Hygiene.

In general, the verdict of the expert, unanimously expressed, was that the food for study offered was well-nigh inexhaustible, and that the great pity of the thing was that such a collection should be distributed after the spell of a few months. This verdict, supported by the result of an excellent business management and favourable meteorological conditions, has led to a scheme being set up for the retention of at least a goodly part of this wonderful collection. The exhibition has been a brilliant financial success. Thanks to the foresight of the authorities heavy charges were made for space let to industrial firms. These charges appeared at first to be prohibitive, but time has proved that the sums spent were well invested in practically every case. It is indeed doubtful whether a flimsy firm exhibiting would have come out of the fire unscathed, but stable concerns rejoice that they had the courage of their opinions and participated at Dresden. Next, the great crowds brought grist to the mill, and the returns of this undertaking may be gathered from the fact that one week-day evening toward the middle of October when the Popular Hall opened at 6 30 with an extra entrance fee of 6*d.*, over 3000 persons paid this fee within a single hour. The result was that long before the exhibition was closed there was a substantial profit. According to previous arrangements a material balance was to be utilised for the purpose of creating a permanent museum of hygiene. As time passed, it became clear that the authorities would be enabled to carry out the permanent museum scheme on a large scale. The site is still undetermined, and will depend on the amount which the organisers are prepared to spend on the building. However, Dresden is the most probable place. Next, the idea has been evolved that the whole will be more educative and more valuable, if set up as a historical representation of what is known of hygienic undertakings from the prehistoric times up to the year 1911. The basis will be those objects which have been specially made in the Historical Section. Of the 20,000 or so objects contained in this section, a good proportion have been created in the laboratories and workshops of the administration. Professor Sudhoff, Dr. Neustätter, and Mr. Kohl, assisted by a large army of experts, have evolved material which has only been guessed at before. Old manuscripts, pictures, broken odds and ends have been utilised for this purpose, and the marvellous models and schemes owe their existence to the great ingenuity of these able men. Next, the administration has wisely examined every object in all the halls, and has sought to acquire the things which would supplement the collection, more especially in regard to the modern development of hygiene. In many instances these objects have been dedicated. It is worthy of note that the British Committee, in recognition of the excellent objects of the scheme and in the wish to show its appreciation of the treatment meted out to it by the administration during the difficult period of its existence, has determined to give those exhibits which it has prepared specially for the British Section. In other cases the administration is purchasing the exhibits, and in still others, where the originals cannot be acquired, the administration, with the exhibitors' permission, is reproducing the exhibits either in model or in pictorial form. It is difficult to conceive at this stage the proportions of the permanent museum. Judging from the thousands of objects which are being set aside for the purpose, either in virtue of actual possession, or gift, or reproduction, or of purchase, the building will have to be the largest ever set aside for a museum.

Given that the educational value to student, expert, man in the street, and even yokel, of the International Hygiene Exhibition has been greater than can be measured in a few sentences, what will be the value of this future museum, which can easily be kept up to date year by year, for posterity? The place which the Popular Hall will take in the permanent museum does not appear to be quite clear. That it is to form a part, an important part, is certain, and tempting offers of purchase from the other side of the Atlantic have wisely been refused without hesitation, in view of the necessity of this collection for the greatest scientific nation in the world. The names of Dr. Luerssen, Dr. Ingelfinger, and of the members of their staff have become great through this colossal work. Splendid credit redounds to the names of the heads of the scientific departments—namely, Regierungsrat Dr. Weber of

the Kaiserliches Gesundheitsamt, Stabsarzt Dr. Xylander, Dr. Woithe, and Dr. Roessle. It is due to the excellent diplomatic and business capacities of Dr. Steinbach and Dr. Graupner that the running of the exhibition was so smooth and so successful. Many other names might well be added to the list of those who have contributed materially to the success of the most exceptional, the greatest, and the most scientific exhibition ever organised. Each has won his spurs. One other name, however, must be given—namely, that of Dr. Mallwitz, who has fought to popularise sport on hygienic lines and who has done wonders in a country in which sport is young. The Saxon Government has already recognised the value of the work done and has extended honours to the two Presidents. The one, Geheimer Kommerzienrat K. A. Lingner is now His Excellency, in recognition of his steadfast purpose in conceiving the plan and collecting the most skilled men of his country to carry it through. The other is a worthy scientist, a medical man of fame, Geheimer Medizinalrat Dr. Renk, who has been promoted to the title of Geheimer Rat. His general management of the scientific part of the undertaking was great. But with all the names of those who have deserved the thanks of the whole world, the chief thing about this undertaking is that the public has benefited by it to an extraordinary degree and those who did the work may reap their satisfaction by the appreciation of this fact.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Hospital Saturday Fund.

THE collections this year have reached the record of £21,463, being £1212 more than in 1910. This growth of the fund is encouraging to the committee, as they are embarking on a very considerable extension of their work in the maintenance of a new home for consumptives. £10,000 will be distributed as usual among the hospitals and nursing societies of the city, the chief items being: General Hospital, £3150; Queen's Hospital, £2100; General Dispensary, £1040; Children's Hospital, £800; Eye Hospital, £350; Women's Hospital, £500; and Orthopædic Hospital, £300. Altogether, 27 charities participate.

An important event occurred on Oct. 14th, when the Lord Mayor, Alderman Bowater, laid the foundation-stone of a new home for consumptives at Romsley Hill, near Rubery. The site, which is a gift from an anonymous donor, is 25 acres in extent, about one-third being woodland. It is on the southern slope of a hill between the Lickey and Clent Hills, and has an altitude of 800 ft. At the ceremony, which was presided over by Alderman Hallewell Rogers, the President, a large number of gentlemen connected with the public life of the city and of workers belonging to the movement were present. The home is intended as a memorial to the late Sir William Cook, who was for many years chairman of the Hospital Saturday movement and also of the Health Committee. An ambitious scheme was prepared, the original plans providing for a large building with central administrative quarters and accommodation for patients on each side. At present a start is being made with the central block and with one wing providing accommodation for 30 beds, 16 for men and 14 for women. The cost is £14,000, but another wing can be added later at a cost of £4250, when the accommodation will be increased to 60 beds.

A Change of Name.

At a special meeting of the supporters of the Midland Counties Asylum it has been decided to alter the title of the charity to "The Midland Counties Institution: A Training Home for the Feeble-minded." It was felt that the word "asylum" applied to an institution for the care and training of the feeble-minded was undesirable and misleading. Since 1868, when it was founded, several changes have been made in its description in order to keep abreast of popular sentiment, the most important being the omission of the word "idiot." Funds are asked for to increase the accommodation and render possible the separation of the sexes.

Post-Graduate Classes.

Post-graduate demonstrations, open to any medical practitioner, will be held at the General and Queen's Hospitals for six weeks commencing Oct. 31st, and on Jan. 23rd, 1912, also for six weeks. The demonstrations will take place on Tuesdays at the General Hospital and on Fridays at the Queen's Hospital. Practitioners wishing to join must apply, enclosing the registration fee of 5*s.*, to the honorary secretary, the Queen's Hospital, who will send the names of lecturers and subjects. A series of demonstrations on the Modern Methods of Diagnosis and Treatment of Consumption will be held at the City Sanatorium, Yardley-road, by the visiting physician (Dr. W. H. Wynn) on Wednesdays from Nov. 8th to Dec. 13th at 3 30 P.M. Special attention will be paid to the use of tuberculin in diagnosis and treatment.

Birmingham and District Provident Dispensary.

This institution, which has been established nearly three years, for some reason does not seem to succeed so well as it deserves. The promoters early sought the advice and good will of the profession, and the medical representation on the central committee is ample and a pattern for similar institutions elsewhere. The members are very unequally distributed among the medical staff. In certain quarters there has been some hostility, the reason for which is not apparent.

Oct. 17th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The Insurance Bill.

THE profession in and around Edinburgh seems to be maintaining a steadfast front with regard to this Bill. The Scottish branches of the British Medical Association have decided to hold a joint meeting in Edinburgh at the end of October, which, it is expected, will be addressed by Mr. J. Smith Whitaker and Dr. J. A. McDonald from the London headquarters of the Association.

Election of a Direct Representative for Scotland on the General Medical Council.

Dr. Norman Walker, whose five years' term of office as Direct Representative for Scotland upon the General Medical Council is now nearly completed, is offering himself for re-election, and his electioneering address will be found in the advertising columns of the present issue.

The Edinburgh Medical School.

With the beginning of this winter there are again changes in the medical curriculum at the Edinburgh Medical School. The student is now advised to begin his studies in summer instead of in winter. If he does so he is allowed to appear for the second professional examination—that is to say, for the subjects of anatomy and physiology—at the end of the second year of study. The third winter can thus be devoted to pathology, materia medica, and surgery. Fevers, diseases of children, mental diseases, diseases of the skin, ophthalmology, diseases of the throat, nose, and ear have all to be attended now during some time in the two last years, in addition to medicine, surgery, midwifery, public health, and medical jurisprudence. The student is no longer to be allowed to take the final examination in such sections as he chooses, but must take medicine, surgery, and midwifery together. It was found that the permission to take these subjects separately encouraged the undesirable system of cramming. A further regulation has been issued to the effect that every student must attend a course of tutorial instruction in physical examination, either before he clerks in the wards, or during his first term of attendance on clinical medicine.

Edinburgh School of Medicine for Women.

The number of students attending this school is maintained. The only changes in the teaching staff this winter are the appointment of Dr. Edwin Matthew as lecturer on systematic medicine in place of Dr. William Russell, resigned, and of Dr. G. L. Gulland as teacher in clinical medicine on his promotion to the full staff.

Changes in the Edinburgh Royal Infirmary.

Owing to the lamented death of Dr. Alexander Bruce there are changes this winter on the medical side of the Royal Infirmary which would not in ordinary course have taken place until next year. Dr. G. A. Gibson has moved into wards 30 and 33, Dr. W. Russell has moved into wards 29 and

30, Dr. Lovell Gulland has been promoted, from senior assistant physician, to wards 27 and 5, while Dr. J. J. Graham Brown has become senior assistant physician in charge of the incidental delirium ward No. 3. The new and recently appointed assistant physician is Dr. W. T. Ritchie.

Edinburgh Royal Medical Society.

This society is to have as its principal guest at the annual dinner this winter Professor Robert Saundby of Birmingham. Professor Saundby is an Edinburgh graduate and was a president of the society in the "seventies."

Inauguration Ceremony at Western Infirmary, Glasgow.

A new building in connexion with the Western Infirmary, consisting of a handsome pavilion with three wards, as well as a new clinical laboratory presented by an anonymous donor, was formally opened a few days ago by Sir James Barr, who took the opportunity to emphasise the need for research work with a view to the prevention of disease. At the same time he expressed the opinion that the new Insurance Bill, which he described as a great step in the downward path to Socialism and degeneracy, would encourage rather than prevent disease. The chairman of the infirmary, Sir Matthew Arthur, outlined the connexion of the Western Infirmary with the Glasgow Hospital for Skin Diseases from the year 1871, when an arrangement between the two institutions was arrived at whereby the outdoor cases were to be treated at the Skin Hospital, while two wards were to be set apart in the Western Infirmary for cases recommended from the Hospital for Skin Diseases for indoor treatment. After the death of Sir Thomas McCall Anderson in 1908 it was thought by the board of the Hospital for Skin Diseases that the two-fold object aimed at by the founders of the hospital—the gratuitous treatment of patients and the advancement of medical science—would be most effectively carried out by drawing closer the ties with the Western Infirmary and by the foundation of the McCall Anderson Memorial Lectureship in the University. The sum of £2500 was accordingly given by the Hospital for Skin Diseases to the University to endow the lectureship, and the remainder of the funds—£2800—was handed over to the infirmary for the endowment of beds. It was arranged that the dispensary work should be done in the Western Infirmary. The managers of the Western Infirmary welcomed the suggestion that one of the wards now in the new wing should be called the McCall Anderson's Memorial Ward, in grateful acknowledgement of Sir Thomas McCall Anderson's many services and in recognition of his distinguished career, and that the other should be called the A. B. Buchanan Memorial Ward, to associate it with the name of Sir Thomas McCall Anderson's colleague in the work of the Hospital for Skin Diseases during the early years of its existence. The third ward was due to the liberality of Mr. William Robertson, who gave £8500 to build and equip it, and a further sum of £3500 to provide an operating theatre.

Revised Regulation for the Carnegie Fees at Aberdeen University.

At a meeting of Aberdeen University Court, held on Oct. 10th, a communication from the Carnegie Trust was read stating that the demands for payments of class fees had considerably exceeded the available income, and it had become necessary to modify the scheme. In the case of present beneficiaries it was hoped to continue the payment of fees as formerly, but new beneficiaries would receive restricted benefits. The annual amount paid to the student of medicine would henceforward be £15, to be paid by means of coupons valued at £1 each, which, when signed by the beneficiary, would be accepted by the university authorities towards payment of ordinary class fees. There would be no value for fractions of a £; the beneficiary must himself pay the shillings in cash in case of guineas, and under no circumstances whatever was cash to be given in exchange for coupons or part thereof.

Aberdeen University Lecturer in Bio-Chemistry.

At a meeting of the Aberdeen University Court held on Oct. 10th, Mr. Edward S. Edie, M.A., B.Sc., was appointed lecturer in bio-chemistry in connexion with the physiological department of the University. Mr. Edie has been for some years director of chemical research in the Liverpool School of Tropical Medicine, and has done much valuable original work.

Opening of the University of St. Andrews.

The winter session of the University of St. Andrews was opened on Oct. 10th. In his opening address Principal Sir James Donaldson, in alluding to bursaries, said that money received in bursaries ought to be regarded as a sacred debt, and when the recipients attained to better circumstances they should apply the sum to the same noble purposes to which the original donors had dedicated the bursaries. In that way the students of a university should be, when they reached maturity, a great help to the university; they should show their interest in the working of it, and endeavour, when their means allowed, to establish facilities by which the able poor could obtain all the privileges of education.

Oct. 16th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Royal Academy of Medicine in Ireland.

THE annual general meeting of the Royal Academy of Medicine was held last week to hear the report of the council and to elect officers and sectional councils. The report stated that during the past session, 1910–11, the Fellows of the Academy numbered 181, the members 20, associates 2, and student associates 8. These figures show a reduction of three Fellows and two members, with one additional associate. The attendances at the meetings during the past session amount to 817. Last year, owing to special circumstances, the number was only 692; the two previous sessions were 731 and 758. This points to an increased interest in the meetings of the Academy. The accounts show a balance to the credit of the Academy in the National Bank of £262 6*s.* 5*d.*, as against a credit balance last year of £255 9*s.* 7*d.*, showing a small increase of £6 16*s.* 10*d.* The following officers and councils were elected: President, Sir Charles B. Ball, Bart.; general secretary, J. Alfred Scott; secretary for foreign correspondence, Sir John Moore. Medical Section: President, Sir John Moore; council, J. Craig, W. R. Dawson, H. C. Drury, J. A. Matson, T. G. Moorhead, J. F. O'Carroll, G. Peacocke, F. C. Purser, W. A. Winter. Surgical Section: President, R. H. Woods; council, C. A. Ball, A. J. M. Blayney, L. G. Gunn, W. S. Haughton, S. S. Pringle, H. Stokes, R. A. Stoney, E. H. Taylor, and W. I. de C. Wheeler. Obstetrical Section: President, A. J. Horne; council, J. S. Ashe, G. Fitzgibbon, A. N. Holmes, H. Jellett, T. Neill, R. D. Purefoy, J. S. Sheill, A. Smith, B. A. Solomons, and E. H. Tweedy. Pathological Section: President, A. H. White; council, A. H. Benson, W. Boxwell, J. B. Coleman, L. G. Gunn, W. G. Harvey, T. G. Moorhead, T. T. O'Farrell, W. D. O'Kelly, and R. J. Rowlette. Section of Anatomy and Physiology: President, E. P. McLoughlin; council, B. J. Collingwood, A. F. Dixon, A. C. Geddes, T. P. C. Kirkpatrick, A. A. McConnell, and N. C. Rutherford. Section of State Medicine: President, M. J. Nolan; council, A. E. Boyd, T. P. C. Kirkpatrick, J. A. Matson, G. E. Nesbitt, G. R. S. Stritch, and W. A. Winter.

Pensions in the Poor-law Service.

Some notable examples have occurred lately of the niggardliness with which boards of guardians treat medical officers who, through age or disability, are forced to retire from service. Poor-law medical officers have no claim to a retiring allowance, but it is open to guardians to grant such allowance according to a certain scale. The officer must first resign, however, before the question can be discussed. In one union recently the guardians granted an allowance of £40 a year after 21 years' service, although they could have granted £55.

Death of Mr. J. H. Chapman, F.R.C.P. Irel.

The death occurred on Oct. 15th of Mr. J. H. Chapman, a well-known Dublin physician. For some months he had been seriously ill, so that his death was not unexpected. In his younger days Mr. Chapman was a keen cricketer and the best underhand bowler in Ireland of his time. He was President of the Leinster Cricket Club, and rarely missed a good cricket match in Dublin. Mr. Chapman enjoyed a large practice and held several public appointments. He had been for many years honorary secretary, and subsequently President, of the Irish Medical Association. His death will be widely regretted.

Death of Dr. John S. Cargin.

Sincere regret was felt in Belfast on the announcement of the sad death of Dr. J. S. Cargin, of Holland House, Seabank-road, Liscard, Cheshire, which took place in Chester Infirmary on Oct. 6th as the result of a motor accident on Sept. 18th at Penymynedd, a little Flintshire village between Hawarden and Hope. Dr. Cargin and a friend in a small two-seated car came into collision at a right-angled crossing with a large car travelling along the high road. The friend was killed instantly, and Dr. Cargin sustained a fractured skull and internal lesions from which he has since died. The occupants of the other car fortunately escaped with comparatively slight injuries. Dr. Cargin, who was an Ulsterman, was educated at the Royal School, Dungannon, and at Queen's College, Belfast, and graduated as M.B. of the Royal University in 1900, and M.D. in 1905. During the Boxer rising in China he saw service in Peking with English, German, and Russian colleagues, and received honourable mention. He went to Liscard about six years ago in succession to Dr. Bristowe. He was a member of the Wallasey Medical Society, and medical referee to a number of assurance societies. He was most popular with his patients. Dr. Cargin was buried at Dromore, co. Down, on Oct. 10th.

Scarlet Fever Epidemic in Portadown.

A mild epidemic of scarlet fever is at present prevalent in Portadown. There are now 50 cases of fever in the Lurgan workhouse fever hospital, chiefly from Portadown.

Midwives or "Handy Women."

At a meeting of the Cookstown board of guardians held on Oct. 14th a motion to appoint a midwife for Coagh was defeated by 16 to 13 votes, and a similar motion for Pomeroy district by 15 to 14, notwithstanding that the Local Government Board had requested the guardians to meet especially to do so, and that its medical inspector, Dr. B. O'Brien, attended and spoke in support of such appointments.

The Water Famine.

The rain still keeps away in the North of Ireland and the water famine every day is becoming more acute. In Londonderry the supply will last but a few days longer, and water is being hawked round that city to be used only for drinking or for preparing food. A mass meeting of the citizens has urged the corporation to go in for a large scheme, by which that city would be permanently relieved from the dread of famine. The city council at a meeting on Oct. 16th decided to adopt the "Cabry" scheme, which various engineers have advocated. The reservoir which supplies the town of Monaghan is almost empty. Many of the larger merchants and bakers now cart water from lakes adjoining that town. Holywood is also in a deplorable condition. The reason why things are not so bad in Belfast is that a few hundred feet below the surface there seems to be an inexhaustible supply of "Cromac" water, largely used by all the manufacturers, who generally have an artesian well sunk on their premises, which makes them largely independent of the city supply.

Oct. 17th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Wireless Telegraphy and Anæmia.

ADMIRABLE as is the new invention of wireless telegraphy, and great as are the services it renders, already certain inconvenient results are making themselves evident among its operators. A French medical man, Dr. Auber of Peyrelongue, has paid particular attention to this question, and he finds that the wireless telegraphy operators on battleships are prone to be affected with a mild anæmia. This anæmia he finds to be the result of a combination of causes of unequal importance, but whose effects are synergic. The ozone must not be incriminated in all cases in the presence of circumstances of a strictly professional nature, though the same cannot be said of the nitrogenous products. The most probable factor is the confinement rather than the many other defective conditions to which the *personnel* is subject. As the most effectual prophylactic measure Dr. Auber recommends an open-air installation in peace time.

First Aid in Paris.

Public assistance is organised in Paris in the town halls, at temporary posts, and by movable ambulance stations on the occasion of public displays, also in first aid stations established on the banks of the Seine and of the canals, to render service in cases of submersion, violent death, death from natural causes, and confinement in public places, as well as in cases of accident and illness. The director, M. Thoinot, a member of the Academy of Medicine, has published his report on the aid thus rendered during 1910–11. Aid was rendered in 1670 cases, of which 321 were in cases of submersion, as against 1526 cases with 352 submersions in 1909. Out of this number in 232 cases the submersion was less than a minute, in 22 more than a minute, in 35 two minutes, and in 3 more than ten minutes. The last three persons could not be resuscitated. At the first-aid stations in 30 town halls 268 cases of injury, and 12 cases of illness received attention. The station of the fifteenth arrondissement alone received 114 wounded. The stretchers of the different posts were used 661 times for transport to the morgue, the hospitals, or to homes, in cases of accident in the public thoroughfares.

Medical Reforms.

On the resumption of work in regard to the Budget on Oct. 10th M. Thomson, speaking on the question of the universities and their supplies, called the attention of his colleagues to the urgent need of reform in the medical curriculum. He insisted on the unsatisfactory state of the equipment of the clinics and laboratories, and added that the decrees reforming the medical curriculum, which were passed as far back as 1909, had not yet been put in force. M. Viviani also insisted on the necessity for arriving at a speedy settlement.

The French Congress of Surgery.

The twenty-fourth Congress of the French Association of Surgery was held in Paris from Oct. 2nd to 7th under the presidency of Professor Segond, who delivered a splendid opening address. The diagnosis and treatment of chronic appendicitis formed the first subject, which was opened with communications by M. Silhol and M. Walther of Paris. Dr. Laplace of Philadelphia discussed the subject from the operation standpoint. M. Lanz of Amsterdam, M. Sonnenberg of Berlin, M. Richelot of Paris, M. Boeckel of Strasburg, M. Tédenat and M. Forgue of Montpellier, M. de Farkas of Budapest, M. Broca of Paris, M. Delagenière of Mans, M. Phocas of Athens, and MM. Lejars, Bégouin, Lambret, Auvray, Reynés, Mauny, Vanvers, Reymond, Paul Delbet, and Maurice Cazin in succession discussed the subject, giving their own personal experiences. Among other subjects dealt with must be mentioned the work of M. Duvergey on phlebitis in the evolution of uterine fibroma; that of Dr. Jayle on conservative surgery of inflammatory lesions of the uterus and annexa in one operation of MM. Cathelin, Boulanger, and Grandjean on the hospital statistics of 1000 reno-vesical cystoscopic explorations; and of M. Buscarlet on the treatment of vesical tuberculosis by insolation. The second subject in the orders of the day was the treatment of acute peritonitis. Professor Hortmann, and Dr. Témoin made the opening communications. The discussion gave occasion to interesting communications from MM. Kirmisson, Forgue, Sonnenberg, Depage, Montprofit, Delagenière, Thiéry, Auvray, Chibret, Savariaud, Vidal, Lecène, Lapeyre, Marquis, and Leriche. The third and last subject was the operative technique of the open treatment of simple fractures. The communications were made by MM. Alglave and Bernardet, and the discussion brought out the opinions of MM. Koch of Groningen, Lucas-Championnière, Depage, Lambotte, Willems, Ceci, Tuffier, Van Stokum, Thiéry, Herman, Princeteau, Dujarier, Gourdet, Paul Delbet, Lardennois, Dupuy, and Hocher. At the close of the Congress Professor Segond gave a delightful reception at the Palais d'Orsay.

Obituary Notes.

Dr. Pouillot, surgeon-major of the colonial troops, recently died a heroic death in Africa. He was in Commandant Hilaire's column at Beshéré and was returning with it, when he received a despatch ordering him to report at Abecher, where an epidemic of small-pox was threatening. Dr. Pouillot obeyed the order by a forced march. At a village through which he passed he was warned that the people being in revolt it would be imprudent for him to proceed, but,

listening only to the call of duty, he pushed on. The next day he was surrounded while passing through a village by 600 armed men, and he and his small escort were massacred. —Dr. Griffon, while performing an operation for empyema, infected an abrasion on his neck with the pus that spirted from the pleural incision. A fatal phlegmon ensued.

Oct. 14th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Cholera Infantum and Housing Accommodation.

AT a recent meeting of the Verein für Innere Medicin Dr. Rietschel of Dresden read a paper on cholera infantum in connexion with the problem of housing. He drew his hearers' attention to the fact that this disease only became known at a time when questions of house accommodation presented difficulties because of the great increase of large cities. The first description of the disease came from America as early as the year 1789, and on this occasion it was expressly said to have been observed only in towns and not in country places; but in 1835 the editor of a German journal when reviewing the American statistics of infant mortality mentioned that he had some doubts as to whether cholera infantum was in reality an entirely American disease. During the "sixties" and "seventies" of the nineteenth century, when the cities of Germany began their marvellous development, cholera infantum spread in a remarkable way and continued to increase until about the year 1900. It was generally admitted that the disease had a relation to the summer temperature, and that it was more frequent in certain districts and streets, and even in certain houses, than in others. Dr. Rietschel maintained that there was a connexion between infantile mortality and certain classes of dwellings the temperature of which was habitually above the average. He said that the temperature of a room depended not only on the temperature of the external air, but also on the size of the room and the number of people living in it; cooking was another cause of the overheating of rooms. These were the reasons which in Dr. Rietschel's opinion made cholera infantum so extremely frequent among the poor. On taking the temperature of the dwellings of poor people during a week he found that it did not fall below 24° C., and that it sometimes rose to 36°. He did not consider that the increased mortality was due either to the heat acting on the milk consumed by the children or to the decomposition of the milk by bacteria. He was of opinion that the heat acted directly on the infant. This was made obvious by the fact that infants in the best of health showed a slight rise of body temperature in a very hot room, and when this was continued for a period of weeks the vitality of the infants and their power of resistance to illness became very much impaired, so that an indisposition originating with slight dyspepsia might prove fatal. With a view to lessening the mortality of infants in summer time it was therefore desirable to avoid a high temperature in the living-rooms, to prescribe cold baths, and to bring the infant as much as possible into shaded places in the open air. Breast-feeding was, of course, essential for the prevention of disorders of digestion.

Assistance for Discharged Asylum Patients and Feeble-minded Persons.

Alienists have for a long time been recommending that something ought to be done by way of after-care for patients who have been discharged from lunatic asylums as recovered, and also for the assistance of feeble-minded persons who, though not actually requiring asylum treatment, are nevertheless unfit for the struggle of life. This course has been especially advocated by Dr. Möli, chief medical officer to the Herzberge asylum of the city of Berlin, and the municipality of this city will now establish an office of which an alienist will be the head, the idea being that these persons require the care of a specialist. When a patient is fit for discharge from one of the municipal lunatic asylums notice will be given to this office, the authorities of which will see that the patient finds proper lodging in a family willing to receive such persons and to allow supervision of them by visitors acting on behalf of the office. The office will also undertake to find employment for patients according to their capacity for work. When the mental disorder has apparently been due to over-indulgence in alcoholic liquors the office will work in connexion with temperance societies and will recommend the patient to become a member of such a society. Patients will not only be assisted in obtaining the necessities of life but in other ways as well; legal advice, for instance, will be given if required. In addition to the medical officer, nurses who have had experience of mental cases will be engaged by the new institution, and there will be voluntary members who will assist the salaried staff.

Simulation of Albuminuria.

Dr. Hadda, physician to the Jewish Hospital in Breslau, has published in the *Berliner Klinische Wochenschrift* an interesting case of simulated albuminuria. The patient was a girl 12 years of age, who had suffered from severe sore-throat and subsequently from albuminuria, œdema, and slight symptoms of uræmia. These symptoms disappeared completely in February, 1910, and she was considered to have recovered. Albuminuria, however, again appeared in November, and the mother of the patient declared that she had observed great masses of mucus in the urine. The medical practitioner in attendance accordingly sent the patient to the hospital for catheterisation of the ureter; but when it was found that the first discharged urine contained 0·125 per cent. of albumin and only very few leucocytes catheterisation was not performed, and the patient's mother was advised to give notice when something abnormal appeared in the urine. Six weeks later the mother again brought her to the hospital declaring that the former symptoms had returned. The first urine obtained by catheterisation of the bladder did not contain albumin, neither did the second portion passed in the afternoon, but on the following morning an enormous quantity of albumin was present. There was no indication of either œdema or headache or alteration of the pulse, and the specific gravity of the urine was only 1026. The quantity of albumin was so great that it could not be measured by the usual Esbach albuminometer. The same thing happened again during the next few days, and the case appeared very obscure until the suspicion was expressed that the mother, who used to be in the patient's room from the early morning, had added white of egg to the normal urine. A quantity of the first morning urine was therefore secretly removed previously to the arrival of the mother, and on examination was found to be absolutely normal. The remainder of the same urine was examined after the mother's arrival and then contained a large quantity of albumin. It was therefore obvious that albumin had been added artificially, and a chemist, who also examined the urine, stated that the albumin was egg-albumin. The reason why the mother had tried to deceive the physicians was because she hoped to receive more money from the guardian of the child when the latter was ill. The family medical man afterwards informed the hospital authorities that the child after her discharge remained in perfect health.

Oct. 16th.

CANADA.

(FROM OUR OWN CORRESPONDENT.)

Toronto's Water-supply.

AT a meeting of the Board of Health of the city of Toronto on Oct. 5th Dr. G. G. Nasmith, director of the board's laboratories, gave expression to some statements and opinions which apparently startled and disconcerted that body. For two years there has been under construction on Toronto Island a sand filtration plant at a cost of £150,000. The citizens have been boiling practically all their drinking water for the past three years and waiting patiently for the completion of this plant, in order to ensure pure water for domestic purpose; and now Dr. Nasmith states that, "while the city has been occupying two years in building a filtration plant, the advance of science has declared the plant an antiquated piece of machinery." Moreover, the city has spent upwards of £400,000 in overhauling its sewerage system and constructing a trunk sewer to empty the sewage some four or five miles east of the city into Lake Ontario at a point known as the Woodbine. During the past months another problem has had to be dealt with—namely, that of laying a new intake pipe beyond the island, extending it further into Lake Ontario, and from a point known as Fisherman's Island. Dr. Nasmith states that the water off

this island will be polluted with at least 28,000,000 gallons of fresh sewage every day. He goes on to say: "From what I have seen this summer I have little doubt but that at times this polluted water will be carried to and beyond our present intake, or any other intake that may be subsequently laid." Dr. Nasmith further says that with all care it is impossible, with the sewerage system as it is now being constructed, to hope to keep all untreated sewage out of Lake Ontario all the time, and, therefore, even should the main effluent from the sedimentation tubes be chlorinated, both filtration and sterilisation must be used to obtain pure water. Toronto's water, drawn from Lake Ontario, passing under Toronto Bay through a concrete tunnel constructed a few years ago and reaching the mainland in the city at the foot of John-street, where the main pumping-station is situated, is pumped for the northern section to the reservoir on the hill north of the city, in Deer Park, and for the southern portion directly into the mains. At the pumping-station chlorination has proceeded for some months with distinct advantage from a sanitary standpoint and also with considerable complaint, particularly as to palatability, on the part of citizens. Into Toronto Bay, lying between the mainland and Toronto Island, the sewage of Toronto has been poured for years. At either end of this bay are gaps or water passages, known as the Eastern and Western Gaps. It will thus be apparent, he says, how easily currents of sewage-polluted water may at times flow almost directly from the Eastern or Western Gap to any intake pipe that may be placed within a radius of several miles from the city, though it is also apparent that in general terms the farther away from the source of pollution and the deeper the water, the greater will be the dilution of sewage, and therefore the greater the safety. The conditions which are causing pollution of Lake Ontario in the vicinity of Toronto at present will, however, change in a short time. When the sewage of the entire city is collected by the new trunk sewers and carried to the Woodbine, and after passing through the Watson sedimentation tanks is deposited in the lake opposite Fisherman's Island, an entirely new set of conditions will be inaugurated. The best, however, that these tanks will do will be to remove 50 per cent. of the suspended matter in well-screened sewage. Dr. Nasmith goes on to suggest three methods of lessening the danger to the citizens of Toronto arising from pollution of its water-supply: (1) By chlorinating the sewage effluent, which, according to one authority, will destroy over 90 per cent. of the pathogenic organisms; (2) by adding biological oxidising beds to the sedimentation tanks; and (3) by sterilising the filtered water. Following these suggestions the local board of health has decided to establish a chlorination outfit in connexion with the filtration plant on Toronto Island, to be used if occasion requires, and also to chlorinate the effluent from the sewage disposal plant. In order, no doubt, to dispose of those persons who, prior to the undertaking of the construction of the filtration plant and the tunnel under the bay, advocated that the Toronto water-supply should be drawn from Lake Simcoe, 50 miles north of the city, Dr. Nasmith reported from samples taken from that lake, that the "bacillus coli was proved out on two occasions," and that a gas-producing organism, which did not prove to be bacillus coli, was found in 15 samples. Accordingly the analyst pronounced against securing Toronto's water-supply from Lake Simcoe.

Diseased Meat Sold in Toronto.

In the monthly bulletin of the Toronto Board of Health Dr. Charles J. Hastings, medical officer of health, states that approximately 500 head of cattle are killed weekly in the 20 abattoirs of the city. Attached to the medical officer of health there are now three veterinary officers in place of one. These three officers are able to make only 116 post-mortem examinations a week. Of these 116 carcasses, 13 on the average are found to be diseased, and 13 carcasses or portions of carcasses are condemned weekly. Among the diseases found are actinomycosis, tuberculosis, sapræmia, abscess, parasites, and new growths. When these figures—which are the averages for the past nine weeks, the lightest killing weeks of the whole year—are taken into consideration, and it is remembered that the percentage inspected of those killed was 23·2, the percentage of diseased was 11·2, and that out of the 500 killed weekly some 55 are probably diseased, this diseased meat being placed on the market without inspection, it is little wonder that some are inquiring if there is any "jungle" business in Toronto. If the 20 abattoirs all kill at the same time, the three veterinary officers can inspect only three of them. Dr. Hastings advocates the construction of one large municipal abattoir where an efficient inspection of every animal killed could be made. The objection to this, however, is that it would strengthen the system, which is now accused of keeping up and increasing the cost of living. Apparently the question of efficient inspection is one merely of expense; and now that the citizens are enlightened as to the conditions, the civic authorities will have to take immediate steps to eliminate any appearance of this evil.

Consumption in Toronto.

There are at the present time 418 cases of tuberculosis under the supervision of the Toronto municipal nurses, 113 of these cases being registered by physicians and 117 of them being in sanatoriums. The health officer fears, however, that there are a thousand or more cases unknown to the city health authorities, even though compulsory notification is now in vogue, and that these may infect their families, friends, and fellow-workers.

Infant Mortality in Ontario.

Ontario has issued its second special report on infant mortality, the first being, so far as can be ascertained, the first instance in which any similar report has been issued by any Government. Both these reports have been specially prepared by Dr. Helen MacMurchy of Toronto. The author has gone far afield to gather material for this report, which is a comprehensive exposition of conditions prevailing and work being done in different parts of the world. It points out that in Toronto 7618 children were born in 1908, and that 1215 of them, or 159 in 1000, died before they were a year old. Stillbirths are not included in the above figures. Illustrations show a row of ten houses in Toronto with one water-tap at the end for their sole water-supply; four houses with only one sanitary convenience; and six houses, containing 50 persons, with only two sanitary conveniences. To attend to the slums and housing problem in Toronto, therefore, the medical health officer has his work cut out. In Ontario the number of illegitimate births in 1908 was 819. There is no separate record of deaths in those under one year. The baby farmer is not unknown in Ontario; £10 is the fee for adoption. There is no system of licensing and registering midwives in Ontario. This is a necessary thing, the report says, and should no longer be delayed. It is doubtful if in Ontario 90 per cent. of the births are registered. The report of the Registrar-General for Ontario for 1908 gives 55,388 births; deaths under one year, 6895; infant mortality rate, 125 per 1000. The highest rate was in the capital, Ottawa, with 521 deaths out of 2035 births, or 256·0 per 1000. The lowest rate was in Woodstock—viz., 98·0.

Registration at McGill University, Montreal.

On Oct. 5th the registration at McGill University for the season 1911–12 shows that the number of first year students in arts and science surpasses all previous records. The first year medical students amount to 71 to date, which is about one-fourth of the entire medical student-body, and is a gratifying increase over any freshmen medical class for the past six years. In science, a department famous the world over, there are 509 students, the freshman class comprising 156.

Oct. 6th.

UNITED STATES OF AMERICA.

(FROM OUR OWN CORRESPONDENTS.)

An Exhibition of Pure Foods.

THE second annual Exhibition of Pure Foods was held at Madison-square Garden, New York, from Sept. 23rd to Oct. 4th. Only manufacturers of preserved goods who eschew the use of artificial preservatives, such as benzoate of soda, were represented, and the exhibition comprised hundreds of varieties of preserved foods, from soup to nuts and raisins and cheese. In an exhibit of adulterated tinned foods a demonstrator showed a doll the clothing of which was dyed solely with the colouring matter taken from ketchup, tomato, and vegetable soup; a steel hatpin was dipped into

a tin of *petits pois* and when withdrawn showed a brilliant plating of pure copper. Strawberry jam was proved to contain only the cores of apples, grass seed, and eosin, with sometimes a little gelatin. Boric acid was shown to exist in many varieties of potted cheese, and the salicylates in many tins of the cheaper condensed soups. An especially interesting feature was 12 babies reared solely on tested milk from the stations established by the New York Milk Committee. A nurse in charge lectured to mothers on the dangers of trying to raise a baby on beefsteak, water-melon, and candy, and, in the case of German and Hungarian mothers, on beer. A different group of babies was shown daily and each was weighed in public. Lectures were given on the various problems presented by foods and other domestic matters. Two large ranges were in constant use, one in the charge of an army cook, the other under the supervision of a "doctor" from the galley of one of the new Dreadnoughts, demonstrating the economical catering in the Federal public services. The new paper-bag cooking received earnest attention in view of the servant problem. Food placed in the specially made paper bags was cooked in the oven and stewed in its own juice with remarkable results as to flavour and economy. The bags were then thrown away, the labour of cleaning and scraping pots and pans being thus abolished. The idea is a modification of the older self-basting baking pan.

Meeting of the American Hospital Association.

At the American Hospital Association, whose recent meeting was referred to in THE LANCET of Oct. 7th, p. 1047, the secretary of the State Board of Charities of New York said that New York was a generation behind the age in ambulance and other public hospital facilities. £600,000 have recently been appropriated by the city for modernising the hospitals, and it is hoped soon to consolidate under one head the Department of Public Charities, the Department of Health, and the Trustees of Bellevue and Allied Hospitals. Despite four training schools, much of the work of caring for patients is carried on by hospital helpers, nearly 1000 of whom receive wages of barely 2*s.* a day. More than 8000 changes have been made in a single year on account of the general inefficiency. In one of the Health Department's hospitals there are as many as six children in one bed. In the lower part of the city there is no organised ambulance service at all, and the city depends upon a charitable organisation for its altogether inadequate help. A new motor ambulance was exhibited which in time will probably replace horse-drawn vehicles. Dr. Walter S. Goodale, superintendent of a Buffalo hospital, exhibited his new ambulance for infectious cases. Its unique feature is the lining, consisting of an aluminium box strengthened with channel steel, which can be slid in and out of the body of the vehicle. After use the lining is removed and sterilised either by live steam or by burning formaldehyde candles inside. There are five such linings, so that a sterile one is always at hand. Each is mounted on wheels in the garage, so that two attendants can change linings in a few moments. Each lining weighs about 300 pounds. It can readily be adapted to an ordinary ambulance of sufficient size.

A Ferryboat as a School.

The New York Committee for the Prevention of Tuberculosis has fitted up an old ferryboat as a school for tuberculous children. The children do all their school work on board, have their meals in the open air, and are under constant supervision by a physician and a nurse.

Public Drinking Cups Abolished in New York City.

By the new Sanitary Code ordinance which came into force in New York City on Oct. 1st, public drinking cups have been legally abolished in hotels, public schools, railroad stations, factories, theatres, and all public places. In schools and factories drinking cups must be provided by children and workers, and it will be a violation of the law to use another person's cup.

The American Electro-Therapeutic Association.

This association held its twenty-first annual meeting at Philadelphia from Sept. 5th to 7th, under the presidency of Dr. Frederic de Kraft, who delivered his presidential address on the Development of High Potential Currents as Applied to Medical Uses. Dr. G. B. Massey, of Philadelphia, in a report on the Direct Continuous Current, urged the paying of greater attention to medicamental ionisation with low voltage currents. Dr. Frederick M. Law, of New York, in a report on Induced Currents, including the alternating and high-frequency current and apparatus, said that in using the d'Arsonval current the amount of dielectric rendered the therapeutic effect more superficial so that the influence was felt more on the sensory nerve endings. The current was of value in intestinal auto-intoxications. The bipolar current might be dangerous unless carefully used. Dr. F. Howard Humphris of London described Professor Bergonié's method of electrically stimulating the muscles for the treatment of obesity. He also read a paper on the use of compressed gases for increasing the efficiency of the static machine. Dr. Edward C. Titus of New York, in a report on phototherapy, considered that its effects were attributable not to heat but to certain invisible, non-caloric, luminous radiations. Dr. W. Benham Snow of New York recommended the establishment of standards for the employment of electro-therapeutic and other physical measures. In a report on the rational treatment of cardio-vascular disease, Dr. Snow said that in tachycardia, due to thyroid hypersecretion, X rays promptly relieved the tachycardia and dyspnœa. He considered the auto-condensation method of treatment of hypertension most valuable, except in cases where parenchymatous nephritis was present. Dr. G. E. Pfahler showed a muffle for the static or high-frequency spark. Dr. D. H. Yates, of Madison, Fla., reported three cases of pellagra treated by high potential currents. Dr. G. Betton Massey, of Philadelphia, read a preliminary note on arsenionisation in inoperable cancer followed by improvement in the general health. Many other papers were read. Richmond, Va., was chosen for the place of meeting next year.

Dr. Wiley at the Conservation Congress.

The attempts to oust Dr. Wiley from the position as head of the Bureau of Chemistry of the United States Department of Agriculture have resulted in a remarkable public expression of opinion. The enemies of the leader of the campaign for pure food and drugs in the United States are strong in influence and money, and they have omitted nothing to accomplish his political ruin. Although certain recent judicial decisions have nullified much of the Bureau of Chemistry's good work the outcome of the effort to expel Dr. Wiley has shown clearly that the community at large is with him. Speaking recently at the Conservation Congress at Kansas City Dr. Wiley stigmatised as "a thief and a corrupter of public morals" the man who substitutes ground peanut shells for pepper, who puts poisonous dyes into children's candies, or keeps wholesome food in storage until the taste has vanished and poisonous products have developed. He made a strong plea for a National Department of Health, and urged the public not to be deterred by the cry of a "doctors' trust."

Oct. 3rd.

NOTES FROM CHINA.

(FROM OUR OWN CORRESPONDENT.)

Flood and Famine in China.

EVERY present symptom points to the fact that the distress in China during the coming autumn and winter will be almost without parallel in the Empire's history. There are sad tidings of inundations from various provinces, but mainly from the valley of the Yangtze River, where over 100,000 people have been drowned or starved to death. Relapsing or famine fever has broken out among groups of refugees huddled together on hills or in towns to which they have fled. Owing, it is said, to a combination of heavy rainfalls and late melting of snow in the mountain ranges of Thibet, the Yangtze has risen to such an extent that in some places it is now only bounded by the ranges of hills which rise many miles from the banks. It is not possible to quote actual figures, but the appalling nature of the disaster may be appreciated when, to quote from the *North China Daily News*, the best informed paper in China, "it would probably be no exaggeration to suppose that half the population of the Yangtze Valley will have to depend upon charity throughout the winter or starve." As this population numbers over 100,000,000, it will be seen that the ruin has been widespread. At the city of Nanking 70,000 refugees have

gathered. Cholera is rife among them, and typhus fever is said to be equally bad, so that the death-rate is reported to be between 200 and 300 a day. Food has been sent to them, but under the awful conditions now prevailing there it is next to impossible for medical science to do anything. Corpses are seen floating about in large numbers. The whole matter has now got beyond the scope of charitable efforts, and the Central Government is being impressed with the need of undertaking some comprehensive scheme of relief. The condition of the Yangtze Valley has been described as a burning disgrace to the history of any nation. Rivers and canals have been embanked instead of dredged until their very beds are many feet above the level of the surrounding country. Hillsides have been recklessly denuded of trees, so that their alluvial soil is washed down in ever-increasing quantity, silting up the river beds. In some hands these disasters are callously regarded as a part of Nature's provision, terrible but necessary, to keep down the surplus population of this prolific race, but such a tame acceptance of such drastic laws of Nature is against the spirit of the age. What is wanted is a central irrigation board maintained by special funds, as in the case of the public works department in India. Meanwhile there is noticeable among Europeans and others in China a certain abatement of charitable enthusiasm due to the malversation of famine funds by various local officials and the heartless "cornering" of foodstuffs (especially rice) by native dealers.

Case of Abdominal Streptotrichosis.

It may be of interest to add to the literature of streptotrichosis a case recorded in the *China Medical Journal* by Mr. A. F. Cole and Mr. G. J. Evans of Ningpo. A Chinese farmer, aged 54, came under their notice suffering from a large fluctuating immoveable mass in the left iliac fossa. It was continuous with an indurated mass extending into the right iliac region, and the upper margin of this was very sharply marked on palpation. The growth had first appeared four months previously, and there were no other symptoms of importance. The patient was not particularly ill nor was he wasted. On operation three ounces of yellowish pus were removed in which were very numerous yellow granules of various sizes, chiefly about 1/16 inch in diameter. The wound healed up completely in the three weeks he was under observation, during which time he was given iodide of potassium in doses gradually increasing up to a drachm per diem. Microscopical examination of the pus at the time of operation showed dense masses of felted mycelium, but no clubs were visible in potash solution. Simple staining and the Gram-eosin method demonstrated branching mycelium and in a few cases thickenings resembling clubs. No other organisms were noticed, nor did they grow on agar or glycerine agar, which produced a very limited growth of the streptothrix only. The case was regarded as one of infection by a very fine sporothrix. The patient died about six months after leaving hospital. It is well that the case has been reported in the *China Medical Journal*, as in this land of abundant tuberculosis in all its forms it may be found by other medical men whose attention is drawn to the matter that some or many of their cases ascribed to the bacillus of tuberculosis would be more accurately included among the streptothricæ, and possibly future reports may show that there are streptotrichoses peculiar to China.

Death of Dr. Lillie E. V. Saville.

Dr. Lillie Saville was well known in North China, and her death, which occurred at the beginning of this month, is deeply deplored. She succumbed to an attack of cerebro-spinal meningitis. During the past few years there have been a number of sporadic cases of this disease among Europeans at Tientsin, and its etiology has puzzled the local medical men since it occurs at indefinite intervals without any epidemic incidence. Dr. Saville studied medicine in Edinburgh where she qualified, and later she received the degree of M.D. at Brussels. In 1895 she was sent out by the London Missionary Society to Peking to take charge of the society's medical work for women. She went through the siege of Peking in 1900 and did heroic work, for which she was decorated with the Royal Red Cross. Some years later she broke down in health from overwork and returned to England. In 1909 she came back to China, having been appointed to the Imperial Government Hospital for Women at Tientsin, where she died. Dr. Saville was a woman of more than ordinary ability and an exceedingly able surgeon. Her tireless energy and ambition to make her hospital a success, as also her efforts to bring the benefits of Western medicine to Chinese women, were evidently too much of a drain on her physical resources.

Peking, Sept. 23rd.

Obituary.

SIR H. J. BLANC, K.C.V.O., M.D. MONTPELLIER,

DEPUTY SURGEON-GENERAL, INDIAN MEDICAL SERVICE.

BY the death of Sir Henri Jules Blanc in Paris on Sept. 30th (recorded in THE LANCET of Oct. 7th) a man of mark, of influence, and of historic interest, has passed from our profession. Born in 1831, he had just completed his eighty years, and in their course had passed a varied and adventurous life. Shortly after his graduation at the University of Montpellier he joined the allied forces in the Crimea, and there saw something of the privations and trials of war. After his return he entered as an assistant surgeon in the Bombay Medical Service, and in that rank served during the China war of 1857-60, where again he had the experience for which his courage and his capacity well fitted him. Selected in 1867 to accompany as its surgeon the mission sent to Abyssinia, he, with its other members, was seized by King Theodore and treated with great cruelty as his prisoner. Upon more than one occasion they were led out for execution, when, being placed at the end of a long line of fellow-captives, they saw them hurled one by one over a precipice, and only when their own turn seemed certain was the performance arrested. This experience, however, did not daunt Sir Henri Blanc, for it has been told of him that upon one occasion, the cruelty of the treatment having been greater than usual, he personally remonstrated, and this in strong terms, with the king, and by thus acting rather gained than lost in his favour. King Theodore was a tyrant, but an unquestionably brave man, and he admired and gave credit to the courage of another. With his release and the storming of Magdala, in which he bore a part, this trying period came to an end, and after receiving a considerable sum of money in compensation for his sufferings, Sir Henri Blanc, on his return to India, was appointed a physician and afterwards a surgeon to the Grant Medical College at Bombay. The latter position he occupied for a good many years, lecturing upon surgery and doing a large amount of operative work. Through the excellence of this work he gained a wide and notable reputation, and his skill principally in operations for vesical calculus brought him from native rulers some princely rewards. In 1887, his health having given way, he retired from the service with the honorary rank of Deputy Surgeon-General, and settled in Cannes. There, with vigour happily restored, he soon formed a large and select practice, and had in his *clientèle* many whose names are to-day well known in the Courts of Europe. To the late King Edward, when Prince of Wales, he proved of signal service, the reward for which came to him in the K.C.V.O., given immediately after the King's accession.

A man of strong and striking personality, of iron will, of the highest courage and resolution, with great natural capacity and wide and well-garnered clinical knowledge, he was peculiarly well fitted for the various positions he was called upon to occupy. How great was the impression made upon him by the stern days of the Abyssinian captivity was evidenced by the fact that in his room, and close by his side, hung the heavy fetters that had then bound him; and it was a sad thought to those who, in the later days of his life, had the privilege of attending him professionally to feel that he was then bound by stronger fetters than those of King Theodore—fetters from which there was no escape and no release on this side of Time, and yet he bore these with as true and great a courage as he had done those of iron.

WILLIAM RICHARD HUGGARD, M.D., M.CH. R.U.I., F.R.C.P. LOND., LL.D.

WE regret to announce the death of Dr. William Richard Huggard, British Consul at Davos, Switzerland, which took place on Tuesday, Oct. 10th. He received his medical education at Queen's College, Galway, at Queen's

College, Belfast, at University College, London, and in Geneva and Vienna. In 1875 he took the M.D. and M.Ch. degrees of the Royal University of Ireland, and in 1880 became a Member of the Royal College of Physicians of London, obtaining the Fellowship of that College in 1898. Eleven years later the Royal University of Ireland conferred upon him the honorary degree of LL D. "as one of its most distinguished graduates." Formerly he was physician to St. Pancras and Northern Dispensary, Euston-road, London. His contributions to medical literature comprise a Handbook of Climatic Treatment, including Balneology, which was published in 1906, and several articles in the medical press on the subjects of lunacy and phthisis. In 1885 we printed in THE LANCET a report by Dr Huggard on some experiments on the excitable area of the cerebral cortex which he had witnessed in the clinic of Professor Schiff.

CHARLES VERNON HITCHINS, M.R.C.S. ENG., L.S.A.

Mr. Charles Vernon Hitchins died at his residence in Weston-super-Mare, Somerset, on Oct. 11th, in his eighty-fifth year. He was born at Bath, received his medical education at St. Bartholomew's Hospital, and qualified M.R.C.S. Eng. and L.S.A. in 1854. Mr. Hitchins went to Weston-super-Mare in 1857. Two years later he was appointed medical officer of health for the town. He was at one time district medical officer for the urban district of Weston-super-Mare, but some years ago resigned this appointment with a superannuation allowance. He was honorary surgeon to the Weston-super-Mare Hospital and Dispensary, certifying factory surgeon, and Admiralty surgeon and agent. Mr. Hitchins was one of the oldest and most esteemed residents of Weston and the senior medical practitioner of the town. He was extremely popular, and was a fine specimen of the old-fashioned medical practitioner, and his wonderful vigour made it difficult to realise that he had attained such a great age, for until a few weeks ago he was attending to his professional duties.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—At a meeting of the Council of the Royal College of Surgeons of England on Oct. 12th the under-mentioned diplomas were conferred upon the following candidates, who have now complied with the respective by-laws:—

F.R.C.S.—Anandrai Keshavlal Dalal, L.M.S. Bombay, L.R.C.P., M.R.C.S., Bombay University, King's College and Middlesex Hospitals; and Herbert Henry Sampson, M.B., Ch.B. Birm., L.R.C.P., M.R.C.S., Birmingham University and London Hospital.

M.R.C.S.—John Bruce Baird, B.Sc., M.B., Ch.B. Glasg., Glasgow University and King's College Hospital; Robert Coltart Harkness, M.B., Ch.B. Edin., Edinburgh University; Victor Stanley Kaufman, M.B. Toronto, Toronto University and London Hospital; and Henry Goulding Rice, B.A. Cantab., Cambridge University and Guy's Hospital.

L.D.S.—Henry Kinnear Ovey, Charing Cross and Royal Dental Hospitals; and John Herbert Wiles, Guy's Hospital.

UNIVERSITY OF CAMBRIDGE.—At the examination in sanitary science held recently the following candidates satisfied the examiners in both parts of the examination:—

William McEntire Clendinnen, James Frederick Corson, Douglas Vernon Cow (Trinity), Albert Victor Craig, Frederick Douglas Crosthwaite, Peter Paul Debono, Thomas Scarbrough Dudding, *Robert Hankinson Williams Fisher (Emmanuel), Kenneth Fraser, †John Gilmour, †Alexander Campbell Nicholson McHattie, Ada McLaren, William Nicoll, Ardeshir Beheramshah Pestonji, Ralph Montgomery Fullerton Picken, Mary Janet Pirret, Laura Gertrude Powell, Reginald Fawcett Priestley (Caius), Leethem Reynolds (Trinity), Ernest Theophilus Roberts, †Berkeley Hope Robertson, James Alexander Richard Thompson, George Henry Hitchcock Waylen (King's), Ernest Alfred Freear Wilkes, Lisette Anne Macdonald Wilson, and Frederick Lindsay Woods.

* Distinction in bacteriology. † Distinction in hygiene.

FOREIGN UNIVERSITY INTELLIGENCE.—*Baltimore (University of Maryland):* Dr. G. Timberlake has been appointed Professor of Genito-Urinary Diseases.—*Berlin:* Dr. Walter Albrecht of Tübingen has been appointed *Oberarzt* of the Laryngological and Otological Clinic of the Charité under Professor G. Killian.—*Breslau:* Dr. Carl Bruck, *privat-docent* of Dermatology, Dr. Curt Zeigler, *privat docent* of Medicine, Dr. Friedrich Strecker, *privat-docent* of Anatomy and Biology, Dr. Heinrich Sachs, *privat-docent* of Neurology, and Dr. August Most, *privat-docent* of Surgery, have been granted the title of Professor.—*Lemberg:* Dr. Raczynnski, Extraordinary Professor of Pædiatry, has been promoted to Ordinary Professor.—*Louisville:* Dr. W. B Doherty, Lecturer, has been promoted to the chair of Midwifery in succession to Dr. H. E. Tuley, resigned.—*Marburg:* Dr. F. König of Greifswald has been offered the chair of Surgery in succession to Dr. P. L. Friedrich, who goes to Königsberg.—*Moscow:* Dr. N. A. Savelyeff, Professor in Dorpat (Iurieff), has been appointed Professor of Therapeutics.—*Münster:* Dr. Eugen Kurz, one of the Prosectors in the Anatomical Institute, has been offered the position of Director of the Anatomical Department of the Shanghai German Medical School in succession to Dr. Ammann.—*Palermo:* Dr. S. Dilliberti Herbin has been recognised as *privat-docent* of Surgical Anatomy and Operations; Dr. G. Caramanna as *privat-docent* of Neurology and Psychology; and Dr. G. Spotu as *privat-docent* of Ophthalmology.—*Parma:* Dr. E. Cecchetto has been recognised as *privat-docent* of Ophthalmology; and Dr. J. Bocchia as *privat-docent* of Hygiene and Sanitary Police.—*Pavia:* Dr. C. Barazzoni has been recognised as *privat docent* of Internal Pathology; and Dr. G. Morone as *privat-docent* of External Pathology.—*Prague (German University):* Dr. Wilhelm Wiechowski, Extraordinary Professor in Vienna, has been appointed to the chair of Pharmacology in succession to Dr. J. Pohl, who is migrating to Breslau.—*Rome:* Dr. F. Fulci has been recognised as *privat-docent* of Pathological Anatomy; Dr. P. Ciuffini and Dr. F. Felici as *privat-docenten* of Otology and Laryngology; and Dr. D. Valebona as *privat-docent* of Physio-therapeutics.—*St. Louis (Washington University):* Dr. Roger S. Morris, Adjunct Professor in Johns Hopkins University, has been appointed Adjunct Professor of Medicine.—*Saratoff:* Dr. A. Bogomoletz of Odessa has been appointed Professor of General Pathology.—*Sienna:* Dr. F. Pancrazio has been recognised as *privat-docent* of Internal Pathology.—*Würzburg:* Dr. G. Hotz, *privat-docent* of Surgery, has been granted the title of Extraordinary Professor.

CENTRAL MIDWIVES BOARD.—A meeting of the Central Midwives Board was held at Caxton House, Westminster, on Oct. 12th, with Sir Francis Champneys in the chair. A letter was considered from Adeline Margaret Taylor, a midwife, as to a letter received by her from the honorary secretary of the Enfield Medico-Ethical Society, informing her that the society had unanimously agreed that a midwife calling in a medical practitioner in any stage of a confinement must guarantee a fee of not less than a guinea and a half, and that the case must be taken over entirely by the doctor. The secretary reported that he had forwarded a copy of the letter of the Enfield Medico-Ethical Society to the Privy Council, and the reply of the clerk of the Council was considered. The Board decided that a copy of Sir Almeric FitzRoy's letter (in which he observes that "the medical interests of the society in question appear to be more prominent than its ethical pretensions, and that in my opinion the correspondence discloses a most improper imposition on the midwife, and one which it is her duty to ignore") be sent to Adeline Margaret Taylor, and that she be informed that the Board has no control over the medical profession, but that if she does her duty under the rules she will discharge the responsibility that attaches to her. The Board, however, regrets that the Government has not yet made provision in such cases. A letter was considered from the deputy clerk of the Privy Council transmitting a copy of a letter addressed to the Home Secretary by Mr. A. Shaw of Bromyard with regard to the case of an uncertified woman practising as a midwife. The Board directed that it be pointed out to the clerk of the Council that the Board has no jurisdiction over uncertified women, the duty of prosecuting whom for a breach of Section 1 of the Midwives Act devolves on the local supervising authority under Section 13 of the Act. A letter was considered from the town clerk of St. Helens, inquiring as to the power of the local supervising authority to make a rule prohibiting a midwife from laying-out a dead body. The Board directed that inquiry be made of the Privy Council as to the power of the local supervising authority to frame a rule as indicated by Rule E. 17 (*b*). A letter was considered from the medical officer of health of Bradford, suggesting that the Board should prescribe a temperature chart for the use of midwives. A letter was considered from Miss Wooldridge, one of the inspectors of midwives for Staffordshire, on the same subject. The Board

decided that the medical officer of health of Bradford be informed that the Board does not propose to prescribe a temperature chart, suitable books for the purpose being already in circulation; and that Miss Wooldridge be informed that the temperature should not be entered in the register, but in a separate book, as directed by the local supervising authority. A discussion took place on a letter from a teaching institution, asking if the training of an epileptic candidate for midwifery should be continued. The Board expressed the opinion that a woman subject to epileptic fits is not competent to practise as a midwife.

LEWES VICTORIA HOSPITAL.—The new Lewes Victoria Hospital, which was opened early last year, is now entirely free of debt. When the report and balance-sheet were drafted for presentation at the annual meeting of donors and subscribers on Oct. 10th there was a debt on the building fund of £246 16*s*. 3*d*., and on the furnishing fund of £46 1*s* 7*d*., but when the meeting-time came the satisfactory announcement was made that with the aid of an unexpected donation and the assistance of other friends the debts had been liquidated. In connexion with the hospital a new dispensary has been opened on modern lines.

THE LONDON HOSPITAL MEDICAL COLLEGE.—The following entrance scholarships have been awarded: Price Entrance Scholarship in Science, value £120, H. W. L. Molesworth; Entrance Science Scholarship, value £60, D. Valentine; Entrance Science Scholarship, value £35, A. G. Harsant; Epsom Scholarship, value £126, A. Alexander; Price Scholarship in Anatomy and Physiology (University Scholarship), value £60, L. P. Costabadie, B.A., Gonville and Caius College, Cambridge; Buxton Scholarship in Arts, value £30, C. A. Hutchinson; and Buxton Scholarship in Arts, value £20, C. O. Carter.

BRITISH MEDICAL BENEVOLENT FUND GUILD: GLASGOW BRANCH.—A branch of the British Medical Benevolent Fund Guild in Glasgow was formed on Oct. 14th at a drawing-room meeting held in Lady McCall Anderson's house, 6, University-gardens. Sir George Beatson presided, and there were present: Sir John Tweedy, London; Sir James and Lady Barr, Liverpool; Sir Hector Cameron, the Misses Turner, Edinburgh; Dr. May Thorne, London; and others. The chairman explained that it was not proposed to form a new society. All that they aimed at was to set on foot an auxiliary or adjunct institution to the British Medical Benevolent Fund. Dr. May Thorne explained the objects of the Guild, and said that the Guild was very anxious not merely to be a giver of doles and even sympathy, but to be a real help in advising and helping people to earn their own living. There was no doubt that the ordinary responsibilities of the upbringing and education of children by the general practitioner were greatly added to by the very small means that many of them had and by the uncertainty of those means. The doctor's bill was frequently the last to be paid. The British Medical Benevolent Fund for many years had been giving grants to medical practitioners, and where necessary to the wives and children and widows and children; but it became borne in on some that grants were not sufficient; that if a measure of personal service could be brought in it would be of infinite value. Therefore this hand-maid of the Fund—the Guild—was organised two years ago in order that the funds might really be more efficiently made use of than perhaps they had been in some cases in the past. The Guild consisted of members and associates, and its objects were to help the British Medical Benevolent Fund by obtaining additional subscribers to the Fund and making it more widely known, and to assist members of the medical profession, their wives and families, who were beneficiaries of the Fund. Lady Barr spoke of the formation of the Liverpool branch, which she said had now 120 members. Sir John Tweedy said that the British Medical Benevolent Fund was instituted in 1835, and since then about £72,000 had been distributed in annuities and £75,000 in grants. During these years there had been 530 annuitants, and there were 131 persons at present on the list. 8330 cases had been relieved by grants. It was agreed to form a branch of the Guild, and on the motion of Sir Hector Cameron the following ladies were elected a committee: Lady MacAlister, Lady McCall Anderson, Mrs. Bryce, Mrs. Maitland Ramsay, Mrs. Renton, Mrs. Grant Andrew, Mrs. Mackintosh, Mrs. John Cowan, Mrs. William McLennan, Mrs. Ebenezer Duncan, with Miss Alice McCall Anderson and Miss Beatson as joint secretaries. Sir James Barr moved a vote of thanks to the speaker, and Mrs. Maitland Ramsay proposed a vote of thanks to the chairman.

THE London Vegetarian Association will hold a reception illustrated with an "unfired food demonstration," arranged by Mrs. Spencer, in the Board Room of the Memorial Hall, Farringdon-street, London, on Thursday, Oct. 26th, at 8 P.M., with Dr. Knaggs in the chair. Mr. Charles Spencer will speak on "The Diet of the Coming Race."

CENTRAL LONDON THROAT AND EAR HOSPITAL.—The inaugural lecture of the winter session at the Central London Throat and Ear Hospital will be delivered by Dr. P. Watson-Williams on Friday, Oct. 27th, at 3 o'clock precisely. On the same evening the annual dinner of the medical staff will take place at the Trocadéro, when Dr. Andrew Wylie will preside.

INCORPORATED ASSOCIATION OF HOSPITAL OFFICERS.—The ninth annual dinner of the association will be held on Saturday, Nov. 4th, at 7 for 7.30 o'clock, at the Holborn Restaurant, High Holborn, W.C. The President of the association, Mr. Richard Kershaw, will be in the chair. Colonel Sir John Young, C.V.O., will be the guest of the evening. Application for tickets should be made to the honorary secretaries, 32, Sackville-street, London, W.

THE ROYAL SANITARY INSTITUTE: SOUTH AFRICAN BRANCH.—The South African Branch of the Royal Sanitary Institute is arranging to hold a congress in Cape Town on Nov. 9th, 10th, and 11th. This is the first sanitary congress to be held in British South Africa, and it is hoped that a large number of delegates will be sent by the municipalities and other authorities interested in sanitation. Among the subjects set down for discussion are: the disposal of sewage, the prevention of tuberculosis, the inspection of food, milk-supplies, and school hygiene. Papers will also be read dealing with other aspects of public health work. The South African Branch, which has only recently been established by the Royal Sanitary Institute, will no doubt have a beneficial effect in the development of public health administration in the Union of South Africa. The honorary secretary to the branch is Dr. A. Jasper Anderson, the medical officer of health of Cape Town.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The winter session was opened on Oct. 16th, when the prizes of the previous session were distributed by the President, Mr. Robert H. Woods, as follows:—Barker Anatomical Prize, £31 10*s*., Miss Eleanor Taylor; special prize (£15 15*s*.), T. Mulcahy. Carmichael Scholarship, £15, E. Connell. Mayne Scholarship, £8, J. T. Duncan. Gold Medal in Operative Surgery, J. T. Duncan; Silver Medal, H. J. Burke. Stoney Memorial Gold Medal in Anatomy, M. Shipsey. Practical Histology: G. M. C. Powell, first prize (£2) and medal; W. P. Cooney, second prize (£1) and certificate. Practical Chemistry: V. A. Power, first prize (£2) and medal; M. Moran, second prize (£1) and certificate. Public Health and Forensic Medicine: G. N. Smyth, first prize (£2) and medal; G. E. Pepper, second prize (£1) and certificate. Materia Medica: G. N. Smyth, first prize (£2) and medal; E. Connell, second prize (£1) and certificate. Biology: N. E. Stephens, first prize (£2) and medal; K. Elms and L. M. Rowlette (equal), second prize (£1) and certificate. Systematic Anatomy: W. H. Carden, first prize (£2) and medal; L. S. O'Grady and R. P. Weldon (equal), second prize (£1) and certificate. Surface and Topographical Anatomy: W. P. Cooney, first prize (£2) and medal; A. Merrin, second prize (£1) and certificate. Practical Anatomy: First year, A. F. Carbury, first prize (£2) and medal; P. J. Polson, second prize (£1) and certificate; second year, M. Shipsey, first prize (£2) and medal; W. Morrow, second prize (£1) and certificate. Practice of Medicine: M. J. Hillery, first prize (£2) and medal; Vernon J. White, second prize (£1) and certificate. Surgery: M. J. Hillery, first prize (£2) and medal; Vernon J. White, second prize (£1) and certificate. Midwifery: M. J. Hillery, first prize (£2) and medal; Vernon J. White, second prize (£1) and certificate. Physiology: W. H. Carden, first prize (£2) and medal; R. P. Weldon, second prize (£1) and certificate. Chemistry: L. M. Rowlette, first prize (£2) and medal; P. J. Polson, second prize (£1) and certificate.

Pathology: G. N. Smyth, first prize (£2) and medal; G. E. Pepper, second prize (£1) and certificate. Physics: J. W. E. Graham, first prize (£2) and medal; J. C. Fergusson, second prize (£1) and certificate.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At the conclusion of the Harveian Oration on Oct. 18th the President of the College presented the Baly medal to Professor W. D. Halliburton, M.D., and the Bisset Hawkins medal to Dr. Clement Dukes.

MIDDLESEX HOSPITAL MEDICAL SCHOOL.—The following scholarships were awarded at the opening of the winter session:—First entrance scholarship (£100), W. T. Warwick; second entrance scholarship (£50), J. K. Muir; third entrance scholarship (£25), W. L. Thomas; University scholarship (£50), A. T. Edwards, St. John's, Cambridge; and Freer Lucas scholarship (Epsom College) (£126), E. St. Clair Gainer.

DEATH OF DR. LEONARD KEATLEY YELF.—Dr. L. K. Yelf was born at Ryde, Isle of Wight, in the year 1828, and was apprenticed in the old-fashioned way at Leamington before pursuing his medical studies at King's College Hospital. He became M.R.C.S. Eng. and L.S.A. in 1852, and then practised for a short time at Melbourne, but returned from Australia in 1856. He then took the degree of M.D. of St. Andrews University, and settled down to practice at Moreton-in-Marsh. In the Cotswold district he worked hard and unceasingly for close on 40 years, and was much esteemed by his patients of all classes. He was particularly kind to the poor, who regarded him as a friend. He took an active part in founding the Moreton Cottage Hospital, of which institution he was surgeon till his retirement in 1895, when he was made consulting surgeon. At the same time he was presented with a silver bowl and purse of money, this mark of appreciation having been subscribed for by his patients and friends. He afterwards resided at Boscombe and latterly at Bransgore, Christchurch, enjoying a well-earned rest. He died on Oct. 3rd from cerebral hæmorrhage.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—A quarterly court of the directors was held on Oct. 11th, Dr. Rigden, Vice-President, being in the chair. Fourteen members were present. The court opened by the chairman referring to the great loss the society had sustained by the death of its president, Dr. George Fielding Blandford, who was elected a member in 1869, and who had always taken the keenest interest in its work. A formal vote of condolence was passed to Dr. Blandford's widow and family. The chairman then moved a vote of congratulation to Sir Thomas B. Crosby, one of the vice-presidents of the society, on his being selected to hold the high office of Lord Mayor of London. This was carried. Four gentlemen were elected members of the society. The acting treasurer reported that the funds of the society would allow of some increase of the grants being made, and brought forward two alternative schemes. It was eventually resolved that in future the yearly grants to orphans be £25 instead of £15. The sum of £515 was voted as a Christmas present to the annuitants of the charity—each widow to receive £10, each orphan £3, and each orphan on the Copeland Fund £5. Relief is only granted to the widows and orphans of deceased members. Any registered medical practitioner who at the time of his election is resident within a 20-mile radius from Charing Cross is eligible for membership. Full particulars may be obtained from the secretary at the offices of the society, 11, Chandos-street, Cavendish-square, W.

BOOKS, ETC., RECEIVED.

CHURCHILL, J. AND A., London.
Domestic Hygiene for Nurses, with so much of Physics and Chemistry as are necessary to the reasonable Understanding thereof. By Fred. J. Smith, M.D., F.R.C.P., Physician to the London Hospital and Examiner in Elementary Hygiene to the Nursing Probations. Price 2s. 6d. net.
A Handbook of Physics and Chemistry. Adapted to the Requirements of the First Examination of the Conjoint Examining Board of the Royal Colleges of Physicians and Surgeons, and also for General Use. By Herbert E. Corbin, B.Sc. Lond., M.R.C.S., L.R.C.P., D.P.H., Medical Officer of Health, Stockport, and Archibald M. Stewart, M.A., T.C.D., B.Sc. Lond., Headmaster of Alresford Grammar School. Fourth edition. Price 7s. 6d. net.

CORNISH BROTHERS, LIMITED, 37, New-street, Birmingham.
Plague at Home and Abroad. Being the Annual Public Lecture on "The Laws of Health," delivered at the Midland Institute, Birmingham, October 6th, 1911. By David Fraser Harris, M.D., D.Sc., B.Sc. Lond., F.R.S.E., Professor of Physiology in the University of Halifax, Nova Scotia. Price 3d. net.
A Miscellany of Verse. By Joseph J. Mooney. Price 2s. 6d. net.

COX, HORACE, "Field" Office, Windsor House, Bream's Buildings, London, E.C.
Sugar Beet, Some Facts and Some Illusions. A Study in Rural Therapeutics. By "Home Counties" (J. W. Robertson-Scott). Price 6s. net.

FROWDE, HENRY, AND HODDER AND STOUGHTON, London.
A Manual of Fevers. By Claude Buchanan Ker, M.D. Ed., F.R.C.P. Ed., Medical Superintendent, City Hospital, Edinburgh. Price 7s. 6d. net.
Clinical Surgery. By C. B. Lockwood, Surgeon to St. Bartholomew's Hospital. Second edition. Price 5s. net.
Manual of Physiology. For Students and Practitioners. By H. Willoughby Lyle, M.D., B.S. Lond., F.R.C.S. Eng., Assistant Ophthalmic Surgeon to King's College Hospital. Price 15s. net.
Tuberculous Diseases of Bones and Joints, their Pathology, Symptoms, and Treatment. By Sir W. Watson Cheyne, Bart., C.B., F.R.S., F.R.C.S., D.Sc., LL.D., &c., Professor of Clinical Surgery at King's College Hospital. Second edition. Price 16s. net.

GREEN, WILLIAM, AND SONS, Edinburgh and London.
Reproduction in the Human Female. The Uterine Mucosa in the Resting, Menstrual, and Pregnant States, and the Function of the Decidua; incorporating an Account of an Early Human Ovum. By James Young, M.D., F.R.C.S. Ed., Physician to the Lauriston Pre-Maternity Home. Price 21s. net.

KEGAN PAUL, TRENCH, TRÜBNER, AND CO., LIMITED, London.
Where Do We Come from? Is Darwin Correct? A Philosophical and Critical Study of Darwin's Theory of "Natural Selection." By Herbert Morse, B.A. Oxon., and Lincoln's Inn, Barrister-at-Law. Price 7s. 6d. net.

KELLY, CHARLES H., 25-35, City-road, and 26, Paternoster-row, London, E.C.
National Health Manuals. School Life. Edited by T. N. Kelynack, M.D. Price, limp cloth, 1s. net.; cloth boards, 1s. 6d. net.

KIMPTON, HENRY, 263, High Holborn, London, W.C. STENHOUSE, ALEXANDER, 40 and 42, University-avenue, Glasgow.
Delayed and Complicated Labour. By Robert Jardine, M.D. Edin., M.R.C.S. Eng., F.R.F.P. & S. Glasg., F.R.S. Edin., Professor of Midwifery in St. Mungo's College, Glasgow. Price 7s. 6d. net.

KING, P. S., AND SON, Orchard House, 2 and 4, Great Smith-street, Westminster, London, S.W.
A German Invasion and the Real German Peril. By Henry Sewill. Reprinted with permission from "The Westminster Review," August, 1911. Price 6d.

LANE, JOHN, The Bodley Head, Vigo-street, London, W.
The Dempsey Diamonds. By Allen Arnot. Price 6s.

LONGMANS, GREEN, AND CO., London, New York, Bombay, and Calcutta.
Dental Disease in its Relation to General Medicine. By J. F. Colyer, L.R.C.P., M.R.C.S., L.D.S., Dental Surgeon to Charing Cross Hospital and the Royal Dental Hospital, with the Assistance of Stanley Colyer, M.D. Lond., M.R.C.P., D.P.H. Price 4s. 6d. net.

ROUTLEDGE, GEORGE, AND SONS, LIMITED, London. (DUTTON, E. P., AND CO., New York.)
Medical Education and Infant Feeding. An Impeachment and a Suggested Remedy. By D. Hastings Young, M.B., Ch.M. Edin. Price 2s. 6d.

SEELEY, SERVICE, AND CO., LIMITED, 38, Great Russell-street, London.
Medical Science of To-Day. A Popular Account of the More Recent Developments in Medicine and Surgery. By Willmott Evans, M.D., B.S., B.Sc. Lond., F.R.C.S. Eng., Surgeon to the Royal Free Hospital and Surgeon to the Hospital for Diseases of the Skin, Blackfriars. Price 5s. net.

STATE GAZETTE PUBLISHING CO., Printers, Trenton, N.J., U.S.A.
Thirty-fourth Annual Report of the Board of Health of the State of New Jersey, 1910, and Report of the Bureau of Vital Statistics. Price not stated.

THIN, JAMES, 54, 55, and 56, South Bridge, Edinburgh.
Practical Chemistry for Medical Students. By Alexander Charles Cumming, D.Sc., Lecturer on Chemistry in the University of Edinburgh. With Preface by Professor James Walker. Price not stated.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

ATKIN, E. E., M.B. Cantab., has been appointed Assistant Bacteriologist at the Lister Institute of Preventive Medicine.
BRAMWELL, BYROM, M.D. Edin., has been appointed Physician to Chalmers' Hospital, Edinburgh.
COOPER, W. R., M.R.C.S., L.R.C.P. Lond., has been appointed Clinical Assistant to the Samaritan Free Hospital.
DEWAR, ALLAN, M.R.C.S., L.R.C.P. Lond., has been appointed Senior House Surgeon at the Royal Albert Hospital, Devonport.
FUNK, CASIMIR, has been appointed a Research Scholar at the Lister Institute of Preventive Medicine.
HARDENBERG, E. J. F., M.R.C.S., L.R.C.P. Lond., has been appointed Surgeon to the "N" Division Metropolitan Police at Chingford.

HOLDICH-LEICESTER, J. C., Major, I.M.S., has been appointed Clinical Assistant to the Samaritan Free Hospital.

ILLIUS, H. WARWICK, Captain, I.M.S., has been appointed Clinical Assistant to the Samaritan Free Hospital.

MACFARLANE, W. D., M.B., M.S.Glasg., has been appointed to the Chair of Midwifery and Gynæcology at Anderson's College Medical School, Glasgow.

MOLONEY, M. F., M.B.N.U.I., has been appointed Coroner for the County of Waterford, and assigned to the Western District.

MUNRO, H. L., M.D. Edin., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Beverley District of the county of Yorks, East Riding.

NORRIS, A. H., M.R.C.S., L.R.C.P. Lond., D.P.H., has been appointed Assistant School Medical Officer for the Berkshire County Education Committee.

O'CONNOR, S. V., L.A.H. Dub., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Crossabeg District of the county of Wexford.

RANSON, WILSON, L.R.C.P. Edin., F.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer of Health to the Beverley Rural District Council.

RAY, W., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant Bacteriologist at the Lister Institute of Preventive Medicine.

REID, R., L.R.C.P. & S. Edin., L.F.P.S. Glasg., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Whitehouse District of the county of Antrim.

WHEELER, H. Q. O., L.R.C.P. & S. Irel., has been appointed Senior House Surgeon at the Borough Hospital, Birkenhead.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BANGOR, CARNARVONSHIRE AND ANGLESEY INFIRMARY.—House Surgeon. Salary £100 per annum, with board, washing, and lodging.

BATH, EASTERN DISPENSARY.—Resident Medical Practitioner. Salary £130 per annum, with apartments, coals, gas, &c.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Resident House Surgeon. Salary £80 per annum, with board and washing.

BIRMINGHAM CITY ASYLUM, Winson Green.—Junior Assistant Medical Officer. Salary £150 per annum, with board, laundry, &c.

BIRMINGHAM EAR AND THROAT HOSPITAL, Edmund-street.—House Surgeon for six months. Salary at rate of £70 per annum, with board, lodging, and washing.

BRISTOL GENERAL HOSPITAL.—House Surgeon for six months. Salary £80 per annum, with board, residence, &c.

BRISTOL ROYAL INFIRMARY.—Throat, Nose, and Ear House Surgeon. Salary £75 per annum, with board, apartments, and washing.

BURY INFIRMARY.—Junior House Surgeon. Salary £80 per annum, with board, residence, and laundry.

BUXTON, DERBYSHIRE, DEVONSHIRE HOSPITAL.—Assistant House Surgeon. Salary £100 per annum, with apartments, board, and laundry.

CAMBRIDGE, ADDENBROOKE'S HOSPITAL.—Second House Surgeon for nine months. Salary £80 per annum, with board, residence, and laundry.

CARDIFF INFIRMARY (GENERAL HOSPITAL).—House Surgeon for six months. Salary £30, with residence, board, and laundry.

COBHAM, SURREY, SCHIFF HOME FOR SURGICAL CONVALESCENTS.—Resident Surgical Officer for six months. Salary £100.

CROYDON GENERAL HOSPITAL.—Junior House Surgeon. Salary £75 per annum, with board, laundry, and residence.

DENBIGH, DENBIGHSHIRE INFIRMARY.—House Surgeon. Salary £100 per annum, with board, residence, and washing.

DEVONPORT, ROYAL ALBERT HOSPITAL.—Assistant House Surgeon, unmarried, for six months. Salary at rate of £75 per annum, with board, apartments, laundry, &c.

DUDLEY, GUEST HOSPITAL.—Assistant House Surgeon for six months. Salary £75 per annum, with residence, board, and washing.

ENNISKILLEN, FERMANAGH COUNTY HOSPITAL.—House Surgeon. Salary £72 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, London, S.E.—House Physician. Salary at rate of £60 per annum, with board, residence, and washing.

EXETER, ROYAL DEVON AND EXETER HOSPITAL.—House Physician and Assistant House Surgeon for six months. Salary of former at rate of £90 per annum, and of latter at rate of £80 per annum.

GLAMORGAN COUNTY COUNCIL.—Medical Officer for Inspection of School Children. Salary £250 per annum.

GLOUCESTER COUNTY ASYLUMS.—Assistant Medical Officer, unmarried. Salary £150 per annum, with rooms, rations, laundry, and attendance.

HAMILTON ISOLATION HOSPITAL, near Motherwell.—Resident Physician-Superintendent. Salary £200 per annum, with board, &c.

HOLT, NORFOLK, GRESHAM'S SCHOOL.—Medical Officer. Salary £250 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—Assistant Casualty Medical Officer, unmarried, for six months. Salary £30, with board, residence, &c.

HUDDERSFIELD ROYAL INFIRMARY.—Junior Assistant House Surgeon. Salary £60 per annum, with board, residence, and washing.

HULL ROYAL INFIRMARY.—Two Assistant House Surgeons. Salary at rate of £60 per annum, with board and lodging.

LEICESTER INFIRMARY.—House Surgeon. Salary at rate of £120 per annum, with board, apartments, and washing.

LINCOLN COUNTY HOSPITAL.—Junior House Surgeon, unmarried, for six months. Salary at rate of £75 per annum, with board, residence, and washing.

LINCOLN MENTAL HOSPITAL, The Lawn, Lincoln.—Assistant Medical Officer, unmarried. Salary £150 per annum, with board, &c.

LIVERPOOL, CANCER RESEARCH LABORATORY, The University.—Assistant. Salary £150 per annum.

LIVERPOOL EYE AND EAR INFIRMARY, Myrtle-street.—Honorary Assistant Surgeon.

MANCHESTER, CITY OF.—Registered Medical Practitioner. Salary £250 per annum.

MANCHESTER NORTHERN HOSPITAL FOR WOMEN AND CHILDREN, Parkplace, Cheetham Hill-road.—House Surgeon. Salary £100 per annum, with apartments and board.

MELROSE, ROXBURGH DISTRICT ASYLUM.—Assistant Medical Officer. Salary £160 per annum, with board, lodging, and washing.

NAPSBURY, ST. ALBANS, MIDDLESEX COUNTY ASYLUM.—Assistant Medical Officer. Salary £160 per annum, with board, lodging, washing, and attendance.

OLDHAM ROYAL INFIRMARY.—Third House Surgeon for six months. Salary £80 per annum, with board, residence, and laundry.

OLDHAM UNION WORKHOUSE.—Resident Assistant Medical Officer.

PADDINGTON GREEN CHILDREN'S HOSPITAL, London, W.—Clinical Assistants.

POPLAR AND STEPNEY SICK ASYLUM, Bromley, Middlesex, E.—Third Assistant Medical Officer. Salary £120 per annum, with rations, apartments, and washing.

POPLAR HOSPITAL FOR ACCIDENTS, Poplar, E.—Senior House Surgeon. Salary at rate of £135 per annum, with board and residence.

PORTSMOUTH, ROYAL PORTSMOUTH HOSPITAL.—House Physician for six months. Salary £75 per annum, with board, &c.

PORTSMOUTH WORKHOUSE INFIRMARY, WORKHOUSE, AND CHILDREN'S HOME.—Second Assistant Resident Medical Officer. Salary £120 per annum, with apartments, rations, &c.

RICHMOND, SURREY, ROYAL HOSPITAL.—Assistant House Surgeon. Salary £70 per annum, with board and apartments.

ROCHDALE INFIRMARY.—House Surgeon, unmarried. Salary £100 per annum, with board, residence, and laundry.

ROUSAY AND EGILSHAY, PARISH OF.—Resident Medical Officer. Salary £71 per annum.

ROYAL NAVAL MEDICAL SERVICE.—Fifteen Commissions.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN.—Honorary Dental Surgeon.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, 49, Leicester-square, W.C.—Honorary Vaccine-Therapeutist.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck-street, Cavendish-square, W.—Honorary Surgeon. Also Resident Medical Officer. Salary £150 per annum, with apartments, attendance, coals, and light.

SHEFFIELD ROYAL INFIRMARY.—Three Junior Resident Medical Officers. Salaries £60 to £65 per annum.

STAFFORD, STAFFORDSHIRE GENERAL INFIRMARY.—House Physician. Salary £82 per annum, with board, residence, and laundry.

SURREY COUNTY COUNCIL.—Assistant Medical Officer for Inspection of School Children. Salary £250 per annum.

SWANSEA EDUCATION COMMITTEE.—Assistant School Medical Officers (one Male and one Female). Salaries £250 each per annum.

WALSALL AND DISTRICT HOSPITAL.—House Physician and Casualty Officer. Salary £80 per annum, with board, residence, and laundry.

WESTERN GENERAL DISPENSARY, Marylebone-road, N.W.—Junior House Surgeon. Salary at rate of £80 per annum, with board, residence, and washing. Also Honorary Ophthalmic Surgeon.

WESTON-SUPER-MARE HOSPITAL.—House Surgeon, unmarried. Salary £100 per annum, with board and residence.

WESTMINSTER HOSPITAL (opposite Westminster Abbey).—Assistant House Physician for two months, non-resident, but board provided.

WIGAN, ROYAL ALBERT EDWARD INFIRMARY.—Junior House Surgeon. Salary £100 per annum, with rations, washing, and apartments.

WINCHESTER, ROYAL HAMPSHIRE COUNTY HOSPITAL.—House Physician. Salary £80 per annum.

THE Chief Inspector of Factories, Home Office, London, S.W., gives notice of vacancies for Certifying Surgeons under the Factory and Workshop Act at Ramsgate, in the county of Kent; at Workington, in the county of Cumberland; and at Weston-super-Mare, in the county of Somerset.

Births, Marriages, and Deaths.

BIRTHS.

FLETCHER.—On Oct. 10th, at Haverstock-hill, the wife of N. Corbet Fletcher, M.B., B.C. Cantab., M.R.C.S., of a son.

FREEMAN.—On Oct. 11th, at Devonshire-place, W., the wife of Dr. John Freeman, of a daughter.

JEFFERISS.—On Oct. 8th, at Artois House, Chatham, the wife of Frederick B. Jefferiss, F.R.C.S., of a son.

MARRIAGES.

BIGGS—THOMPSON.—On Oct. 14th, at the Parish Church, Hampstead, Arthur Cecil Barker Biggs, M.R.C.S., L.R.C.P., to Dora Adelina Thompson, daughter of Archibald Thompson, Chesterford-gardens, N.W.

GRAY—MALLETT.—On Oct. 3rd, at St. Luke's Church, West Norwood, William Harrington Gray, M.R.C.S. Eng., L.R.C.P. Lond., to Lydia Alice Maud Mallett, of Wandsworth.

JAQUES—TATUM.—In Montreal, Canada, on Oct. 18th, 1911, by the Dean of Montreal, Mr. Frank H. Jaques, to Muriel, eldest daughter of H. T. Tatum, M.R.C.S.E., grand-daughter of the late Thomas Tatum, F.R.C.S.E., L.S.A., Consulting Surgeon to St. George's Hospital, London.

RIGBY—MACBETH.—On Oct. 12th, at All Souls', Langham-place, Hugh Mallinson Rigby, F.R.C.S., to Flora, daughter of Norman Macbeth, of Woldingham, Surrey.

WORTHINGTON—BANKART.—On Oct. 5th, at Exeter Cathedral, Robert Alfred Worthington, F.R.C.S., to Evelyn Marian, third daughter of the late James Bankart, F.R.C.S., and of Mrs. Bankart, of Exeter.

DEATHS.

HARGRAVE.—On Oct. 16th, at London Hospital, from pneumonia, Donald Herbert Hargrave, aged 19 years, the eldest son of Herbert J. Hargrave, M.B., C.M., of 32, Spital-square, Bishopsgate, E.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

COW-DUNG WASHING AND PLAGUE PREVENTION.

WITH reference to an annotation in THE LANCET of Sept. 30th, 1911, p. 958, Dr. C. N. Saldanha writes:—"I do not eulogise cow-dung floors. Concrete cement floors would be vastly preferable. But we have not got them and are not likely to have them for a long time yet for the general masses of the vast population of India. Finances forbid their adoption. Even concrete cement floors should be frequently cow-dung washed in India, especially during plague epidemics. What Dr. C. J. Martin means by a cow-dung floor is the common Indian mud floor which is cow-dunged over when first laid down. To keep it clean and habitable it requires to be frequently cow-dung washed. This is what is generally neglected in the Punjab and the North-West and other such plague provinces. Hindu conservatism in Madras and Eastern India generally secures indirectly much better attention to this most important sanitary rule. Dr. Martin's remarks on cow-dung floors, seemingly quoted in THE LANCET editorial as against my proposal, are in reality in support of it. The difference between the cow-dung floors of Dr. Martin and the cow-dunging, or cow-dung washing, of my proposal, and as understood by all the classes of the natives, is the difference between black boots or shoes and blackening boots or shoes. Black boots indicate the sort or colour of boots: blackening boots means the cleaning of them. Two different things altogether. Is this not so? Cow-dung washing destroys the rats' nests in the Indian rooms referred to by Dr. Martin, for the odds and ends in the room have to be removed. In fact, the room gets quite as empty as the builder first left it. Every bit of furniture goes out into the open central courtyard before the preparatory sweeping of the room for the cow-dunging commences at all. It is for this reason that the cow-dung-washing day is not in India a fixed day of the week. It comes once a week or once a year, or anywhere between the two periods, and in some families even oftener than once a week. But the day chosen is a bright sunny morning. This kills two birds with one stone. The housewife seeks a bright day to put out in the yard her sticks of furniture and odds and ends. She does not want them to get drenched with rain, but her main reason is that the cow-dung-washed room may get dried the quicker. Dry it she must and will. To obtain this end she must open wide all her doors and windows, which on other days is anathema maranatha. She thus unconsciously assists the scientific sanitarian on this one day. Now, among other things, I want to multiply the number of such days by increasing the frequency of cow-dung washing days. There is no other way of getting her to utilise the well-known effects of sunlight and free currents of air to devitalise B. pestis. Preaching is useless. Hearing is one thing and conviction is another. And one cannot convert all India to English and European notions of sanitation by simply preaching them. Actual demonstration is out of the question; one cannot get all India or any considerable fraction of it to attend to these demonstrations, least of all to believe in them. Sunlight and free ventilation, which are necessary for drying a cow-dunged room, also devitalise any tubercle bacilli that may have been present in the cow-dung used in washing the room. Free drying is a *sine quâ non*. The housewife takes a pride in giving an even coat to the floor. Afterwards, and as a finishing process, the room is swept with a broom. Of course, if the floor is not quite dry this will cause smudges, and it will also stain the broom, both of which the housewife wants to avoid. Hence the great impetus to admit to-day heaven's gifts of light and air. The sweepings from the room must be burnt, as also the rag used in spreading the cow-dung. Cow-dung washing does not necessarily kill all the fleas caught in the process, but it facilitates their removal from the room. They get caught in the mucilage; it nets them. Some come off in the sweeping, which is therefore to be burnt, not thrown into the dustbin. As a precaution against conveyance of fleas from one floor to another, I have recommended a separate broom for each floor. Indian brooms only cost a farthing each, so it is a very inexpensive measure."

THE LATE DR. JOSEPH BELL.

"J. W. B." writes: "To many of those who studied at Edinburgh in the later 'seventies' and early 'eighties' of the last century Dr. Joseph Bell—or, as he was more familiarly called, Joe Bell—was one of the most attractive of the teachers of surgery, first in the Old and then in the New Infirmary. His ward visit was always a breezy one. Carrying a towel in his hand, he passed rapidly from bed to bed, getting information as to the progress of a patient, sometimes from the house surgeon sometimes from the staff nurse (there were no sisters then), sometimes from the patient, and sometimes from all three. In a few sentences we were told what had been the matter, when the operation had been done, and were assured that the man or the woman was getting along finely; very often, nearly always, the information was accompanied by a personal appeal for confirmation to the patient, and I remember wondering if any of Bell's cases ever went wrong. It was the early days of antiseptics, and the strength of the carbolic lotion employed would startle the present-day surgeon. With the really ill people he was very tender, gave us few details, and said to us almost in a whisper, 'Operate to-morrow; tell you all about it then.' Two or three of the cases requiring dressing were inspected, and three or four dressers putting on wool and bandages marked Dr. Bell's progress through his wards.

"But the ward visit was nothing in comparison to the out-patient clinic. It was there that Bell amazed us all, patients and students alike, with the rapidity of his diagnosis, with the brilliancy of some of his pieces of deductive reasoning, with the apparently irrelevant nature of some of the questions asked, and more particularly with the confident statements made as to the calling, habits, likes or dislikes, and place of birth of the men and women who came into the theatre and passed out again, often in the briefest space of time. Some of us explained it on the hypothesis that Dr. Bell got a sight of the out-patient clerk's note-book; but the patients who came up late spoiled that supposition. Occasionally, he condescended to tell us how he knew a policeman, a soldier, a sailor, or a cobbler, and then it all seemed uncommonly simple; but there were hundreds of little details which he seemed to obtain from nowhere, and about which he was silent. Of course, he occasionally made slips; once he asked a young girl when she came over from Ireland, to which she replied that this was the first time that she had left her native village in Ross-shire. Bell gave us the reason why he made that mistake, but I forget now what it was.

"One night I felt prompted to go to Bell's house to discuss a matter with him; I was shown into his library where he sat writing letters. He asked me to excuse him one minute as I had come a little earlier than he had intended. Presently he informed me that he had willed me to come along, but that I had come more quickly than he had expected. I had intended coming the previous evening but had been prevented. Had I pressed this I suppose Bell would have retorted that on the previous evening he had not fully formulated his mental desire for my presence! On some similar occasion Dr. Bell told me of some curious experiences he had had. One of them, he thought, must have been the origin of Sherlock Holmes's discovery of the identity of a certain individual by reading the name on the lining of his hat. A patient had called one day to ask Dr. Bell's advice, but wished to remain *incognito*, and rather testily refused to give his name; Bell said nothing, but exchanging his ordinary sheet of notepaper for one of foolscap wrote his prescription in very small letters in the middle of it with the patient's name above it, and handed it to his would-be mysterious visitor. He had read his name on an article of his attire, which was not, however, the band of his hat.

"But there was another side of Joseph Bell's life, and to those who were present at that impressive funeral service in St. George's U. F. Church on Oct. 7th, Principal Whyte's marvellous prayer of thanksgiving to God for what Dr. Bell had been to so many patients, friends, students, and professional brethren must have seemed no idle words. Dr. Bell showed princely liberality when the occasion demanded; he was ready to give his surgical services for nothing when his patients were fighting hard to discharge all their obligations; he gave a helping hand to younger men climbing the ladder of professional success, and he did his kind things most unostentatiously, his kindest things almost as secrets from himself."

THE PRESERVATION OF VACCINE IN HOT COUNTRIES.

IN connexion with the annotation on this subject published in THE LANCET of Oct. 7th, p. 1027, we have received a reprint of a paper on the Effect of Desiccation on Calf Lymph, by Dr. F. R. Blaxall, which was included in the Reports of the Local Government Board, 1900-01, Appendix C, p. 664. He showed that the vaccine organism could stand desiccation for as long as four months without loss of vitality. He also suggested that the process of desiccation might prove to be of value in storing lymph and in transmitting it to hot countries. These observations were made several years prior to the publication of the paper referred to in our annotation.

ARMY AND NAVY MALE NURSES' COOPERATION.

THE offices of this institution are at 11A, Welbeck-street, Cavendish-square, W., and not at the address given in THE LANCET of Oct. 14th, p. 1077.

DANGERS OF A 50-MILE WALK.

THE pitiful condition of two competitors in a recent London to Brighton walking race should act as a warning to those who, without the necessary training and physique, may be induced to take part in such a severe trial of strength. The race took place under the auspices of the clerks of one of the London banks. Seventeen competitors entered and out of these ten were "timed in." Of the remaining seven two succeeded in getting within a quarter of a mile of their goal, where they struggled to a public seat in some pleasure-gardens, and there, in a state of absolute collapse, were found by a police officer. The seriousness of their condition was only too apparent, and the officer lost no time in procuring assistance and had them conveyed to the Royal Sussex County Hospital. Over-exertion had brought about their condition, and it was some hours before they were in a fit state to leave the institution. Except to those accustomed to long walks at frequent intervals, a journey on foot of this kind may lead to serious consequences.

ITALIAN CONVERSATION.

AN Italian medical man, practising in the South-West of London, would be glad to exchange conversation with some brother practitioner who wishes to learn Italian *free*. Our correspondent also speaks French fluently.

A CORRESPONDENT writes to point out one or two small inaccuracies in our obituary notice of Mr. L. S. Little in our last issue (p. 1108). It was in 1869 that Mr. Little went to China, and he lived in China for 30 years. He did not return direct to England, but in 1899 left China for South Africa.

Dr. W. L. Maccormac, the Infirmary, Balham, S.W., would be glad to learn of a suitable institution for a boy, aged 15, with chronic coarse choreiform movements and good intelligence.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

A DIARY OF CONGRESSES.

WE shall publish this diary from time to time that our readers may have under their hands the dates of the approaching scientific Congresses. It is unnecessary to issue the lists of all these functions week by week, and we propose to make only such gatherings as will occur in the immediate future the subject of regular announcement. The following Congresses, Conferences, and Exhibitions are announced for October, 1911:—

April-October.—Rome Exhibition (United Italy's Jubilee).
,, 29th-Oct. 26th (Turin).—International Exhibition.
May 3rd-Oct. 31st (Glasgow).—Scottish Exhibition.
,, 6th-Oct. 31st (Dresden).—International Hygiene Exhibition (British Section opened June 14th closed Oct. 16th).
,, 12th-Oct. 31st (London, Crystal Palace).—Festival of Empire Imperial Exhibition. (Profits to King Edward VII. Hospital Fund.)
,, 18th-October 21st (London, Shepherd's Bush).—Coronation Exhibition.
,, 23rd-Oct. 21st (London, Olympia).—Electrical Exhibition.
September-November (Antwerp).—International Exhibition of Alimentation, Brewing, Wines, and Liqueurs.
Oct. 20th-22nd (Roubaix).—Second National Congress of the Mutualité Maternelle.
,, 22nd and 23rd (Lyons).—Twelfth French Congress of Medicine.
,, 25th-27th (New York City).—Annual Conference of Sanitary Officers of the State of New York.
,, 26th-28th (Rome).—Congress of the Italian Society of Laryngology, Otology, and Rhinology.
,, 31st-Nov. 4th (London, Royal Horticultural Hall).—Twenty-second Universal Cookery and Food Exhibition.
October (Paris).—First Congress of the International Medical Association for the Prevention of War.
Nov. 1st (opens) (Turin).—International Exhibition of Hygiene.
,, 1st-14th (London).—"The Englishwoman" Exhibition of Arts and Handicrafts.
,, 3rd-11th (London, Olympia).—Tenth International Motor Exhibition.
,, 9th-11th (Cape Town).—Congress of the South African Branch of the Royal Sanitary Institute.
,, 10th-25th (Manchester).—Smoke Abatement Exhibition.
,, 14th and 15th (Vienna).—Jubilee of Union of Austrian Dental Surgeons.
,, 21st-23rd (Montreal).—Canadian Public Health Association (First Annual Meeting).
November (Rome).—Fourth International Congress of Physical Education.
,, (London).—Motor Exhibition.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Oct. 18th, 1911.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain fall.	Solar Radio in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks.
Oct. 12	30·19	S.E.	...	85	64	48	49	50	Foggy
,, 13	30·02	E.	...	64	61	50	52	53	Foggy
,, 14	29·98	S.	0·21	59	58	53	57	57	Overcast
,, 15	30·23	N.E.	...	70	59	55	54	56	Overcast
,, 16	30·18	N.E.	0·02	65	56	53	53	54	Overcast
,, 17	30·12	E.	...	89	60	54	53	55	Overcast
,, 18	30·10	S.E.	...	79	62	48	49	49	Foggy

The following journals, magazines, &c., have been received:—
American Journal of Clinical Medicine, New York Medical Journal, American Journal of Obstetrics, Birmingham Medical Review, Annales des Maladies des Organes Génito-Urinaires, American Journal of Orthopedic Surgery, La Clinique Ophtalmologique, Journal of Nervous and Mental Disease, American Medicine, South African Medical Record, Midland Medical Journal, Women's Industrial News, Australian Medical Journal, Los Angeles Mining Review, Albany Medical Annals, St. Paul Medical Journal, Die Therapie der Gegenwart, Yellow Fever Bureau Bulletin, Sleeping Sickness Bureau Bulletin, Journal of Anatomy and Physiology, Symons's Meteorological Magazine, American Journal of Surgery, Local Government Review, Medical Record, Eugenics Review, Caledonian Medical Journal.

Medical Diary for the ensuing Week.

SOCIETIES.

ROYAL SOCIETY OF MEDICINE, 15, Cavendish-square, W. (temporary address during building of new house).

MONDAY.
ODONTOLOGICAL SECTION (Hon. Secretaries—W. W. James, Stanley Mummery): at 8 P.M.
Casual Communications:
Mr. Hopewell-Smith: The Presence of Blood Vessels in the Enamel Organ of the Kangaroo.
Paper:
Mr. J. G. Turner: Some Unusual Pathological Conditions of the Mouth.
President's Inaugural Address:
Mr. H. Lloyd Williams.

TUESDAY.
MEDICAL SECTION (Hon. Secretaries—Sir John F. H. Broadbent, Robert Hutchison): at 5.30 P.M.
Paper:
Dr. S. T. Pruen (Cheltenham): Slight Strokes.

THURSDAY.
NEUROLOGICAL SECTION (Hon. Secretaries—Wilfred Harris, T. Grainger Stewart): at 8.30 P.M.
Presidential Address:
Dr. F. W. Mott, F.R.S.: The Inborn Factors of Nervous and Mental Diseases.

FRIDAY.
SECTION FOR THE STUDY OF DISEASE IN CHILDREN (Hon. Secretaries—T. R. Whipham, H. S. Clogg, Percy G. Lewis), at 11, Chandos-street, W.: at 4.30 P.M.
Cases:
Dr. Porter Parkinson: General Paralysis of the Insane in a Girl.
Dr. G. A. Sutherland: (1) Infantilism; (2) Extreme Rickets.
Dr. F. Langmead: Two Cases of Sclerodermia (one previously shown on Oct. 28th, 1910).
And other Cases.
Paper:
Mr. Sydney Stephenson: On Cases of Night-blindness with Peculiar Conjunctival Changes in Children.
BALNEOLOGICAL AND CLIMATOLOGICAL SECTION (Hon. Secretaries—A. Manuel, F. A. de T. Mouillot): at 6 P.M.
Presidential Address:
Dr. G. H. Thompson (Buxton): Baths and Climate in Relation to Spa Treatment; Some Reflections and Suggestions.
(The ANNUAL DINNER of the Section will be held at the Imperial Restaurant, 66, Regent-street, W., at 7.30 P.M.)
EPIDEMIOLOGICAL SECTION (Hon. Secretaries—W. H. Hamer, G. S. Buchanan): at 8.30 P.M.
Paper:
Dr. R. Farrar: Plague in Manchuria.

MEDICAL SOCIETY OF LONDON, 11, Chandos-street, Cavendish-square, W.
MONDAY.—8.30 P.M., Mr. H. Tilley: Acute and Chronic Suppuration of the Accessory Sinuses: the Etiology, Diagnosis, and Treatment from the Point of View of the General Physician and Surgeon (illustrated by cases and the epidiascope).

HUNTERIAN SOCIETY, London Institution, Finsbury-circus, E.C.
WEDNESDAY.—9 P.M., Dr. H. Fox: Presidential Address. Dr. F. Fox: Cases illustrating the Use of Venesection.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies-street, W.C.
MONDAY.—4 P.M., Dr. H. MacCormac: Clinique (Skin). 5.15 P.M., Lecture:—Dr. J. L. Bunch: Rashes in Children.
TUESDAY.—4 P.M., Dr. H. Campbell: Clinique (Medical). 5.15 P.M., Lecture:—Dr. C. O. Hawthorne: Internal Ophthalmoplegias.
WEDNESDAY.—4 P.M., Mr. J. Cunning: Clinique (Surgical). 5.15 P.M., Lecture:—Dr. F. J. Wethered: The Nature and Treatment of Certain Forms of Indigestion (with demonstration).
THURSDAY.—4 P.M., Dr. P. Parkinson: Clinique (Medical). 5.15 P.M., Lecture:—Dr. A. Latham: Principles of Treatment in Infective Disease.
FRIDAY.—4 P.M., Mr. W. Stuart-Low: Clinique (Ear, Nose, and Throat).

POST-GRADUATE COLLEGE, West London Hospital, Hammersmith-road, W.
MONDAY.—10 A.M., Surgical Registrar: Demonstration of Cases in Wards. Dr. Simson: Diseases of Women. 12 noon, Dr. Bernstein: Pathological Demonstration. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. 2.30 P.M., Mr. Dunn: Diseases of the Eye. 5 P.M., Lecture:—Mr. Edwards: Rectal Surgery.
TUESDAY.—10 A.M., Dr. Robinson: Gynæcological Operations. 11.30 A.M., Mr. Etherington-Smith: Demonstration of Minor Operations. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. 2.30 P.M., Dr. Abraham: Diseases of the Skin. 5 P.M., Lecture:—Dr. Davis: Diseases of the Throat. (Lecture I.)
WEDNESDAY.—10 A.M., Dr. Simson: Gynæcological Demonstrations. Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. Mr. B. Harman: Diseases of the Eye. 2.30 P.M., Dr. Simson: Diseases of Women. 5 P.M., Lecture:—Dr. Low: Malaria.
THURSDAY.—10 A.M., Surgical Registrar: Demonstration of Cases in Wards. 12.15 P.M., Lecture:—Dr. G. Stewart: Practical Medicine. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. 2.30 P.M., Mr. Dunn: Diseases of the Eye. 5 P.M., Lecture:—Mr. Baldwin: Practical Surgery. (Lecture II.)

FRIDAY.—10 A.M., Dr. Robinson: Gynæcological Operations. 12.15 P.M., Lecture:—Dr. Pritchard: Practical Medicine. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. 2.30 P.M., Dr. Abraham: Diseases of the Skin. 5 P.M., Lecture:—Dr. Davis: Diseases of the Nose. (Lecture II.)

SATURDAY.—10 A.M., Medical Registrar: Demonstration of Cases in Wards. Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. Mr. Bishop Harman: Diseases of the Eye. 2 P.M., Medical and Surgical Clinics. X Rays. Operations.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.

MONDAY.—2 P.M., Operations. 2.15 P.M., Mr. Turner: Surgery. 3.15 P.M., Sir Dyce Duckworth: Medicine. 4.30 P.M., Mr. R. Lake: Ear and Throat. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 12 noon, Ear and Throat.

TUESDAY.—2 P.M., Operations. 3.15 P.M., Dr. R. Wells: Medicine. 2.15 P.M., Mr. R. Carling: Surgery. 4.15 P.M., Sir M. Morris: Diseases of the Skin. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 12 noon, Skin. 4.30 P.M., Special Lecture:—Dr. Hughes: Anæsthetics.

WEDNESDAY.—2 P.M., Operations. 2.15 P.M., Dr. F. Taylor: Medicine. 3.30 P.M., Mr. Cargill: Ophthalmology. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 11 A.M., Eye.

THURSDAY.—2 P.M., Operations. 2.15 P.M., Dr. G. Rankin: Medicine. 3.15 P.M., Sir W. Bennett: Surgery. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 12 noon, Ear and Throat.

FRIDAY.—2 P.M., Operations. 2.15 P.M., Sir J. Rose Bradford: Medicine. 3.15 P.M., Mr. McGavin: Surgery. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 12 noon. Skin. 2.15 P.M., Special Lecture:—Sir John Bradford: Pleural Effusion.

SATURDAY.—10 A.M., Radiography. 11 A.M., Dr. A. Davies: Pathological Demonstration. 2 P.M., Operations. Out-patient Demonstration:—10 A.M., Surgical and Medical. 11 A.M., Eye.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.

WEDNESDAY.—4 P.M., Lecture:—Dr. Habershon: The Value of Auscultatory Percussion.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen-square, Bloomsbury, W.C.

TUESDAY.—3.30 P.M., Clinical Lecture:—Dr. R. Russell: General Paralysis of the Insane.

FRIDAY.—3.30 P.M., Clinical Lecture:—Dr. A. Turner: Neurasthenia.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn-road, W.C.

TUESDAY.—3.45 P.M., Dr. A. Wylie: Larynx.

FRIDAY.—3 P.M., Inaugural Lecture:—Dr. Watson Williams: The Influence of the Upper Air Tract on Respiration (illustrated by lantern slides).

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, 49, Leicester-square, W.C.

TUESDAY.—6 P.M., Mr. W. Hampson: X Rays: the Tube and its Control.

THURSDAY.—6 P.M., Chesterfield Lecture:—Dr. M. Dockrell: The Treatment of Eczema in all its Forms.

ANCOATS HOSPITAL, Manchester.

THURSDAY.—4.45 P.M., Mr. W. R. Douglas: Differential Diagnosis of Chronic Lesions of the Tongue. (Post-Graduate Clinic.)

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (23rd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9 A.M.), St. Mark's (2.30 P.M.), Central London Throat and Ear (Minor 9 A.M., Major 2 P.M.).

TUESDAY (24th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London, (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.), Chelsea (2 P.M.), Children, Gt. Ormond-street (9 A.M. and 2 P.M., Ophthalmic, 2 P.M.), Tottenham (2.30 P.M.), Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.), Royal National Orthopædic (9.30 A.M. and 4 P.M.).

WEDNESDAY (25th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's 2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Ear (2 P.M.), Children, Gt. Ormond-street (9 A.M. and 9.30 A.M., Dental, 2 P.M.), Tottenham (Ophthalmic, 2.30 P.M.), West London (2.30 P.M.), Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.).

THURSDAY (26th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal National Orthopædic (9 A.M. and 3.30 P.M.), Royal Ear (2 P.M.), Children Gt. Ormond-street (9 A.M. and 2 P.M.), Tottenham (Gynæcological, 2.30 P.M.), West London (2.30 P.M.), Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.).

FRIDAY (27th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Royal National Orthopædic (3.30 P.M.), Soho-square (2 P.M.), Children, Gt. Ormond-street (9 A.M., Aural, 2 P.M.), Tottenham (2.30 P.M.), St. Peter's (2 P.M.), Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.).

SATURDAY (28th).—Royal Free (9A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 A.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9 A.M. and 9.30 A.M.), West London (2.30 P.M.).

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